

MINISTRY OF THE INTERIOR, EGYPT.

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Department of Public Health.

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**Eighth Annual Report of the  
OPHTHALMIC SECTION,  
1920,**

By the Director of Ophthalmic Hospitals.

CAIRO.  
GOVERNMENT PRESS.

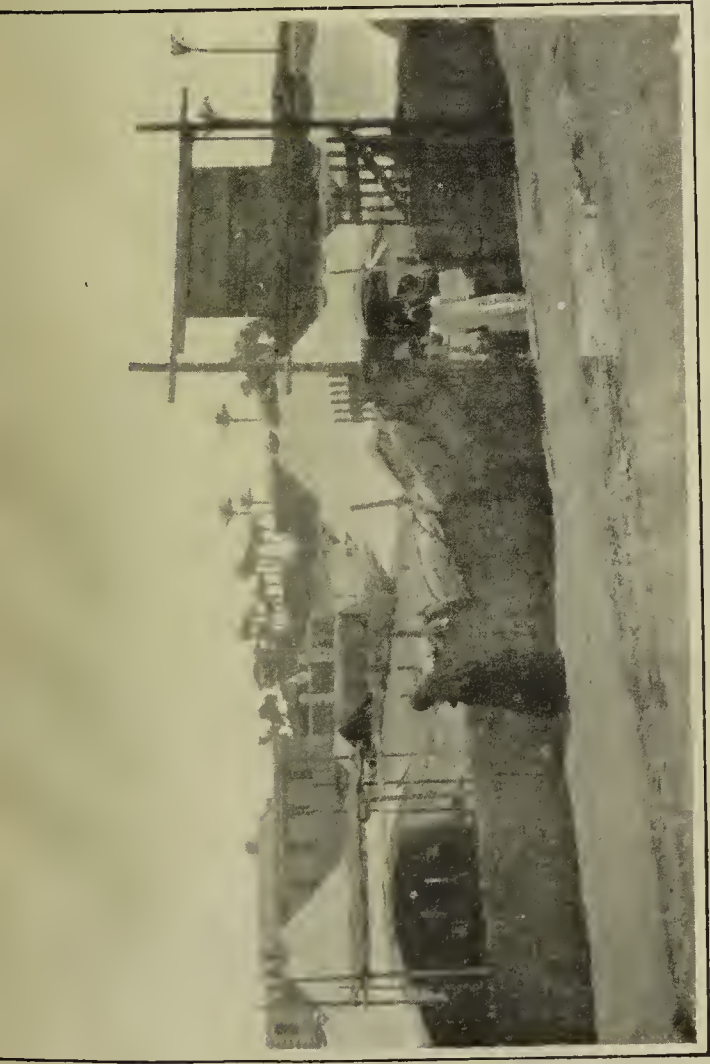
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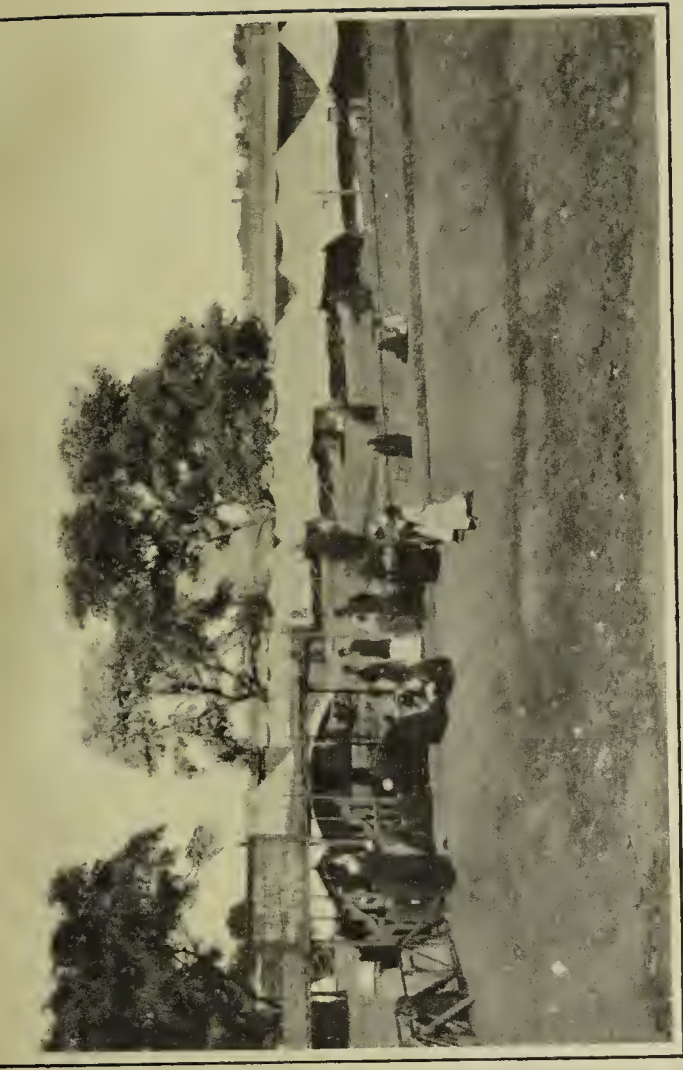
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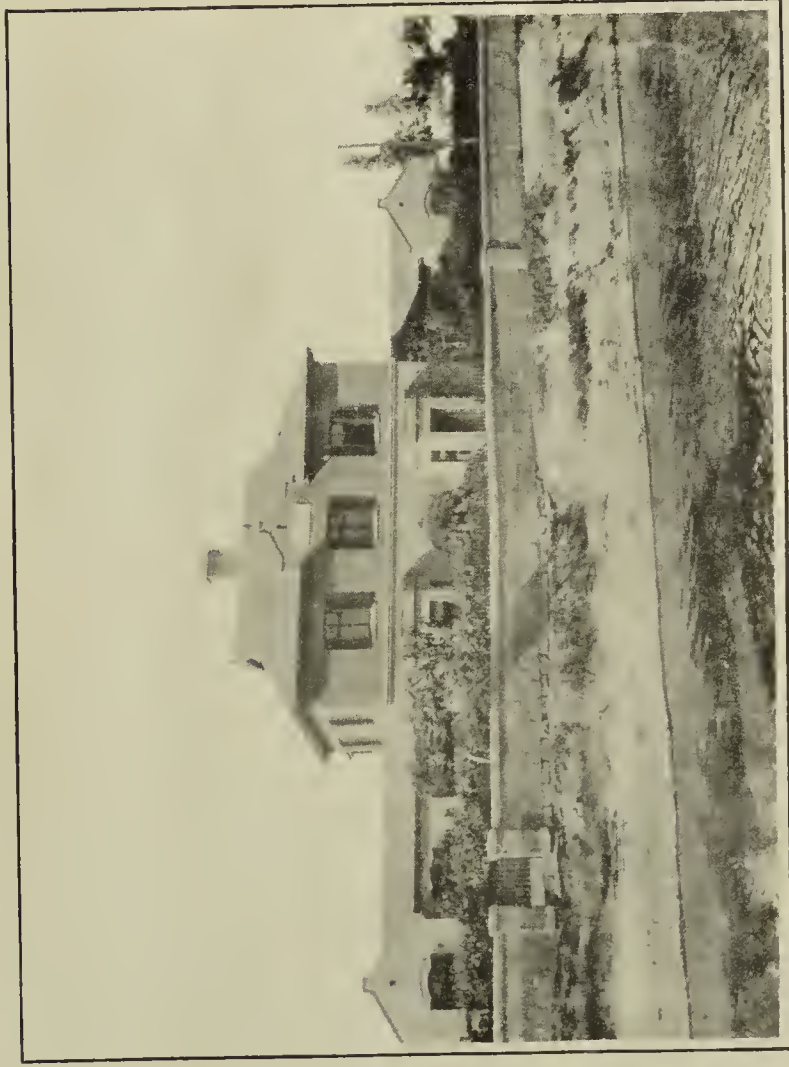




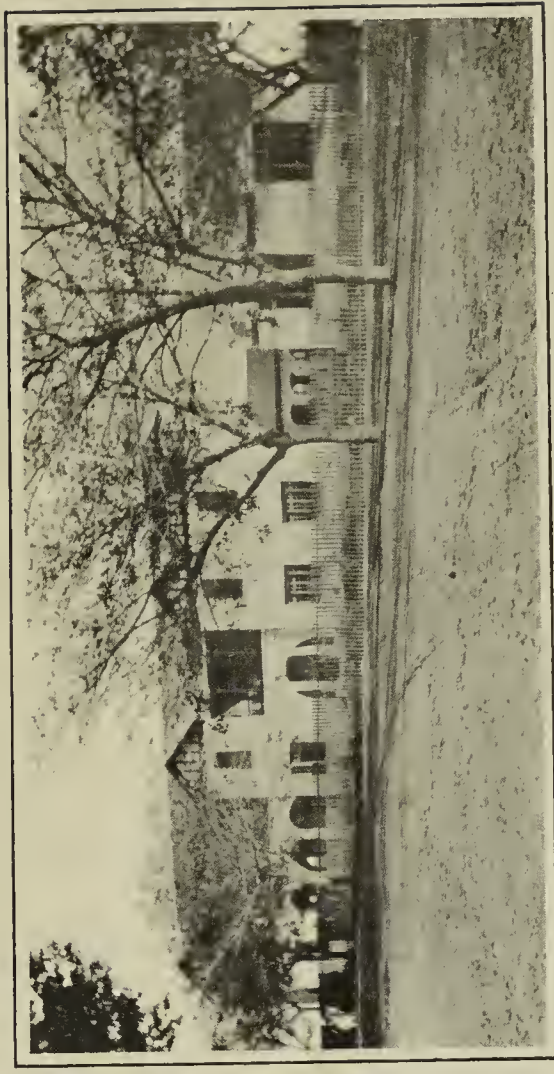
Cassel Fund Travelling Ophthalmic Hospital No. 1. 1904.



Cassel Fund Travelling Ophthalmic Hospital now permanently attached to Aswân Province. 1905.



Tanta. 1908.



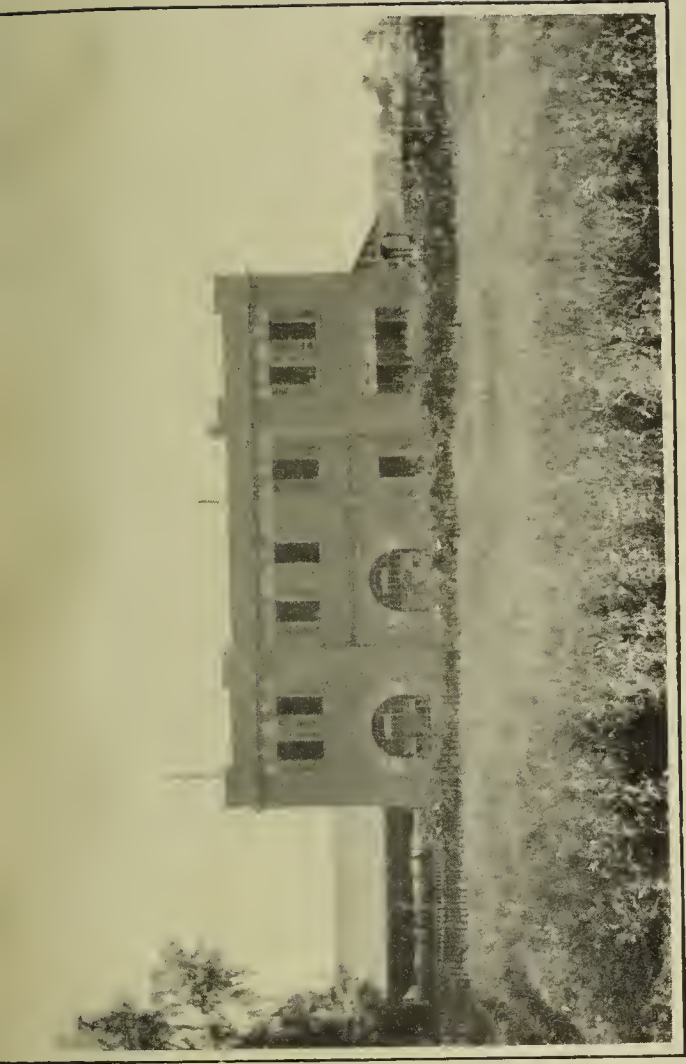
Asyût. 1911.







Mansûra. 1912.



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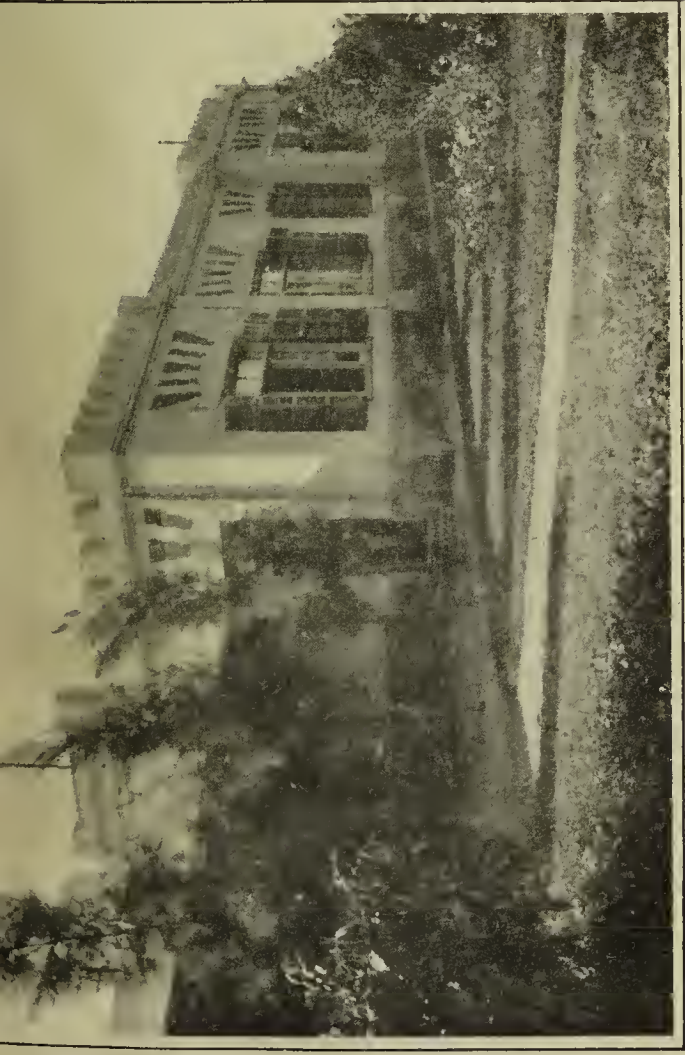
Asyût Travelling Ophthalmic Hospital. 1912.  
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Zagazig. 1913.







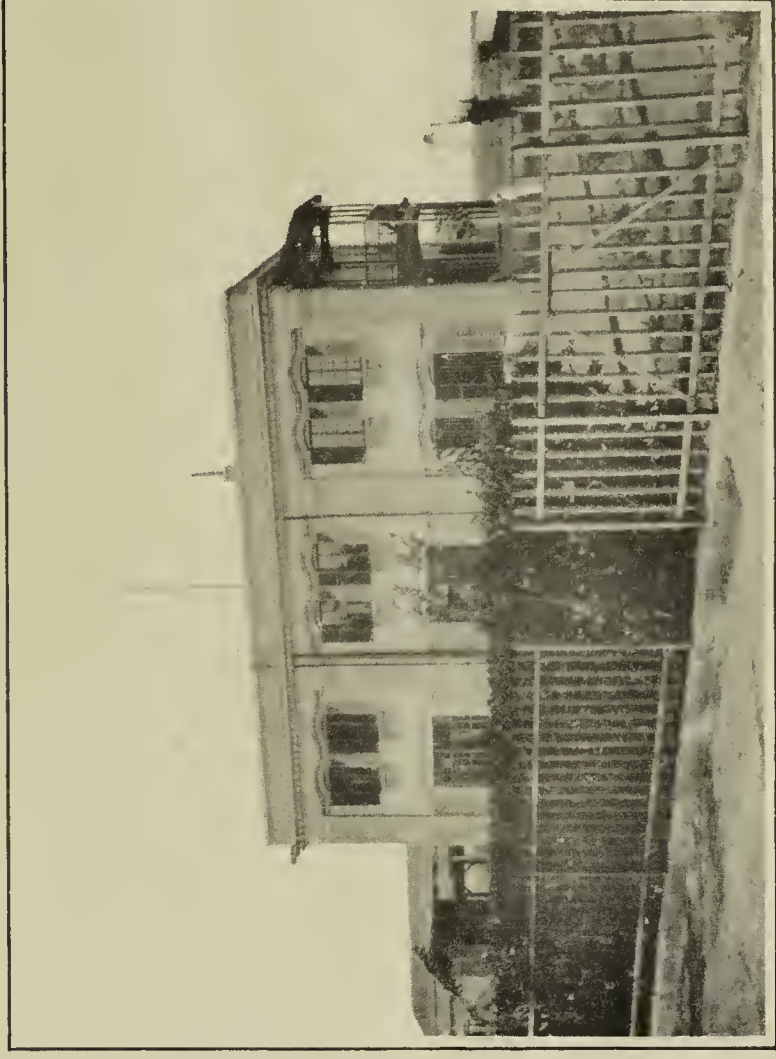
Mahalla el Kubra. 1913.  
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Daqahliya Travelling Ophthalmic Hospital. 1913.  
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Damanhur. 1914.



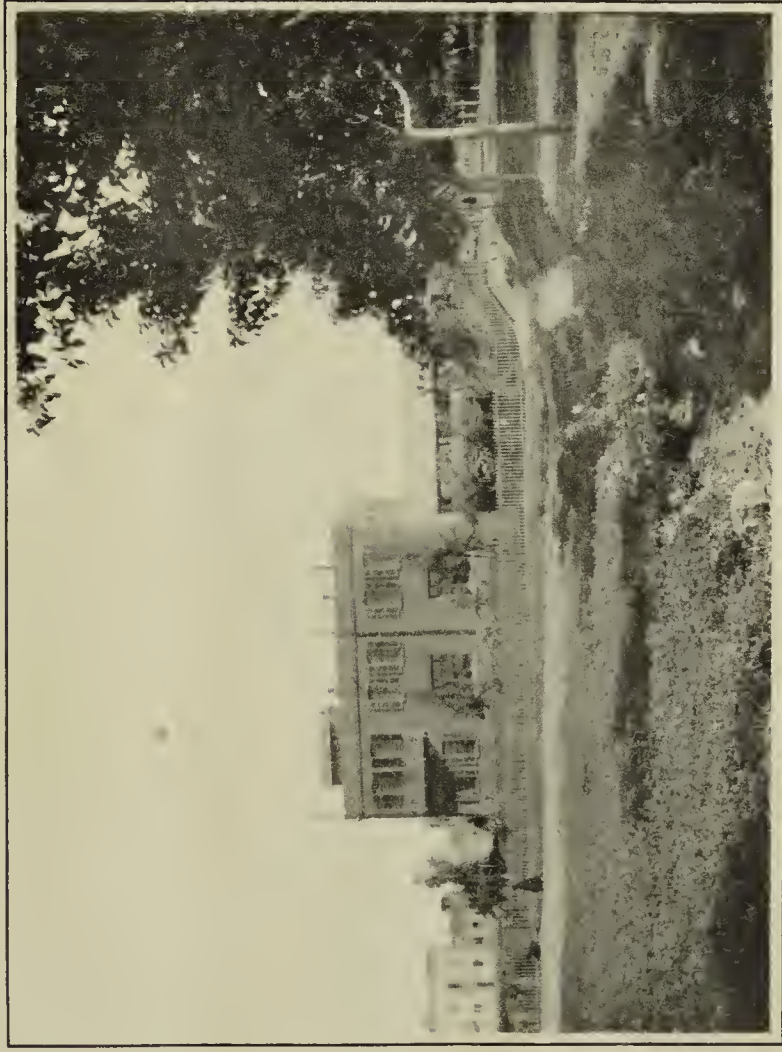




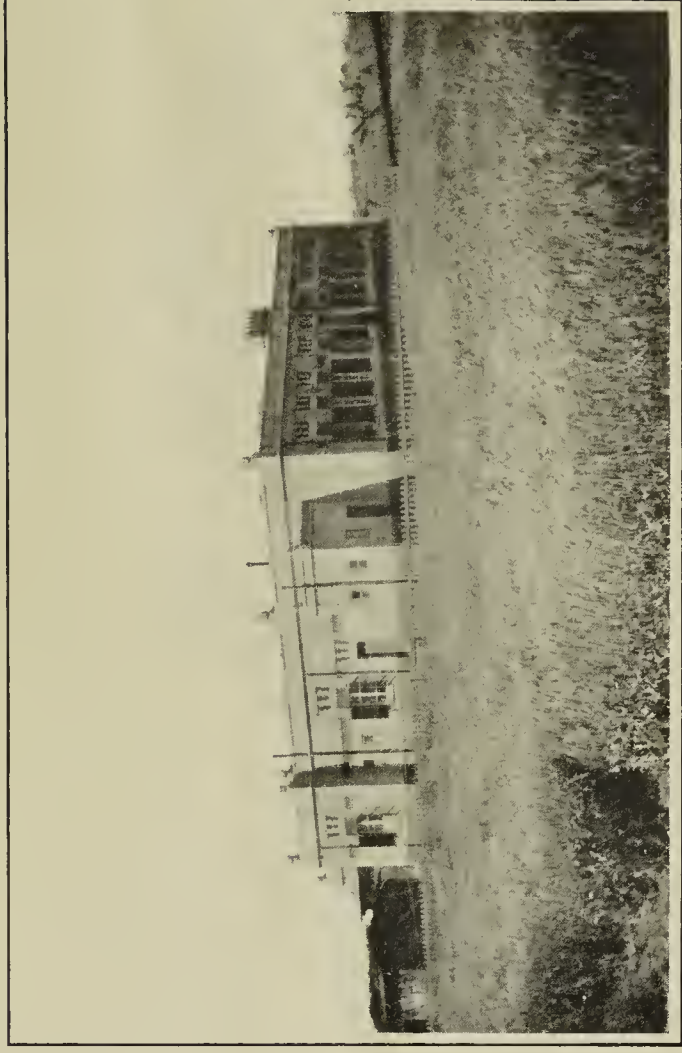
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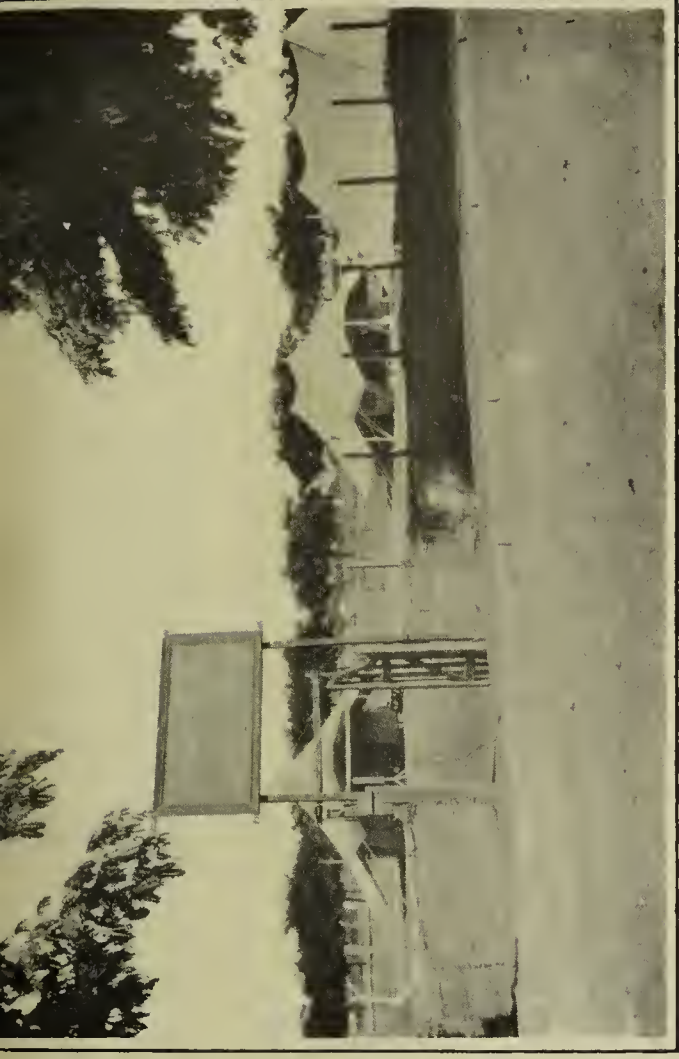
Santa. 1915.  
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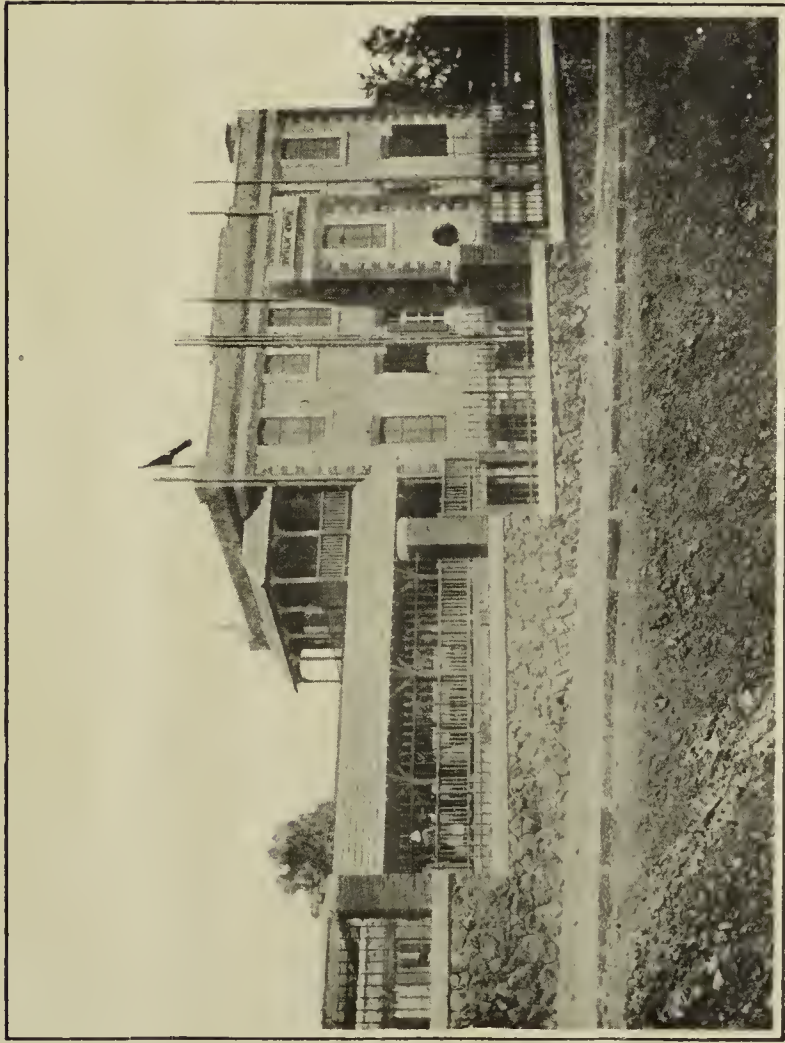




Faiyûm. 1916.



Stationary Ophthalmic Hospital for Giza Province. 1918.



Benha. 1920.



Port Said. 1921.







Qena. 1922.





*Cairo,*  
*July 23, 1921.*

SIR,

I have the honour to enclose my Report on the Ophthalmic Hospitals and on ophthalmic progress in Egypt during the year 1920.

I have the honour to be,

Sir,

Your obedient servant,

A. F. MACCALLAN,

*Director of Ophthalmic Hospitals.*

TO THE UNDER-SECRETARY OF STATE,

DEPARTMENT OF PUBLIC HEALTH,

MINISTRY OF THE INTERIOR.





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## DEATH OF THE FOUNDER OF OPHTHALMIC HOSPITALS IN EGYPT.

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The death occurred in London on September 21, 1921, of the Right Honorable Sir Ernest Cassel, who was known by every educated person in Egypt as the founder of the Egyptian Ophthalmic Hospitals.

In 1903 Sir Ernest Cassel placed under the trusteeship of the late Earl of Cromer a sum of L.E. 40,000 for the training of Egyptian medical men in the science and treatment of diseases of the eye. At the suggestion of Dr. Osborne it was decided by the then Director-General of the Department of Public Health, Sir Horace Pinching, into whose hands Lord Cromer had given the management of the fund, to commence by the establishment of a single travelling ophthalmic hospital, in which ophthalmology should be taught by a specialist brought out from England for the purpose. From this small beginning a system of ophthalmic hospitals has developed, providing at Government expense, with the assistance of the Cassel Fund, a permanent specially built hospital in each of the fourteen provinces of Egypt, together with three additional permanent hospitals in the largest province, while elsewhere there are five travelling hospitals in tents.

All these hospitals are served by Egyptian surgeons whose special education has been the outcome of Sir Ernest Cassel's original benefaction.

Sir Ernest Cassel continued to take an enthusiastic interest in the work until his death.

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# REPORT ON THE OPHTHALMIC SECTION, 1919.

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## FOREWORD.

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During 1920 clinical work was carried on at twenty hospitals or units in Egypt, and shows an increase on the amount done in the previous year, the number of new patients amounting to 94,921, the number of operations to 56,503, and the number of attendances of out-patients to 1,064,509.

With the completion of the hospital now being built at Qena (of which His Highness the Sultan laid the foundation stone in January 1921) the task of providing a hospital for each province will have been more than fulfilled. The complete inability of Aswân province to build a hospital has led to the allocation of one of the two large travelling hospitals provided and endowed by Sir Ernest Cassel to the province. It will be at work at Aswân town in the winter, and in the spring will move to Kôm Ombo, or to Idfû, or perhaps still further north to Isna or Luxor which though not actually in Aswân Province are a very long distance from the nearest permanent ophthalmic hospital at Qena.

The photographs of the hospitals which are reproduced in this report show the twenty different units. The travelling hospitals are five in number; two of these are the large and completely equipped hospitals which were converted into general hospitals during the great war. The third large tent hospital is stationary at Gîza and is similarly equipped. Every operation which can be done in a building can be done in a properly equipped tent hospital, but surgery is somewhat at the mercy of dust storms, and a very much stricter attention must be paid to every detail of administration in order to ensure asepsis. The two travelling hospitals provided and maintained by the Provincial Councils of Daqahliya and Asyût are smaller and less expensive, but both of them are capable of very useful work, each of them seeing about 3,000 new cases and doing about 2,000 operations a year, in spite of having only one surgeon for each and a staff composed of the fewest possible employees.

The capital expenditure involved in the provision and equipment of the twenty hospitals has been approximately L.E. 100,000. The annual cost of maintenance, including the expenses of ophthalmic clinics at the Government Primary Schools and the cost of administration was L.E. 33,000. It is claimed that these sums, details of which are given in an appendix to this report, are significant of economical management.

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# RAPPORT

## DU DIRECTEUR DES HOPITAUX OPHTALMOLOGIQUES, 1920.

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### AVANT-PROPOS.

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Durant l'année 1920 le travail clinique a été fait dans vingt hôpitaux et cliniques. Il a accusé une augmentation sur le travail de l'année précédente. Le nombre des nouveaux malades s'élève à 94,921, le nombre des opérations à 56,503 et le nombre des malades externes à 1,064,509.

Par l'achèvement de la construction de l'hôpital de Qena (dont la première pierre a été posée par Sa Hautesse le Sultan en janvier 1921) la tâche de doter chaque province d'un hôpital aura été plus que remplie. L'impossibilité complète dans laquelle se trouve la Moudirieh d'Assouan de construire un hôpital nous avait réduit à la nécessité de donner à cette province l'un des deux hôpitaux ambulants offerts et dotés par Sir Ernest Cassel. Cet hôpital fonctionnera à Assouan en hiver et, au printemps, il sera transféré à Kom-Ombo ou à Edfu ou peut-être plus au nord encore, à Esna ou Luxor lesquelles villes, quoique ne faisant pas partie de la Province d'Assouan, sont à une très grande distance de l'hôpital ophtalmologique le plus rapproché, celui de Qena.

Les photographies des hôpitaux qui sont reproduites dans ce rapport montrent les vingt différents hôpitaux. Les hôpitaux ambulants sont au nombre de cinq, deux d'entre eux sont les grands hôpitaux à équipement complet qui ont été transformés en hôpitaux pour les blessés durant la grande guerre. La troisième grande tente-hôpital stationne à Gîza et est équipée d'une façon similaire.

Toute opération qui peut être faite dans un bâtiment peut être faite dans une tente-hôpital bien équipée, mais les instruments chirurgicaux y sont plus ou moins à la merci des tempêtes de sable, et une surveillance beaucoup plus attentive doit être exercée en ce qui concerne les moindres détails d'administration afin d'assurer l'asepsie. Les deux hôpitaux ambulants créés et entretenus par les Conseils Provinciaux de Daqahlieh et d'Assiout sont beaucoup plus petits et moins coûteux, mais ils sont tous deux aptes à rendre des services très utiles. Dans chacun de ces deux hôpitaux on examine près de 3,000 nouveaux malades et on y fait près de 2,000 opérations et cela malgré le fait qu'ils ne sont pourvus chacun que d'un seul chirurgien et d'un personnel composé d'employés en nombre extrêmement réduit.

Les dépenses en capital engagées pour la création et l'équipement des vingt hôpitaux a été de L.E. 100,000 approximativement. Le coût annuel d'entretien, y compris les dépenses pour les cliniques ophtalmologiques des Ecoles Primaires gouvernementales et les frais d'administration, s'élève à L.E. 33,000. On peut invoquer ces chiffres, dont les détails sont donnés dans un appendice de ce rapport, comme témoignant d'une administration économe.

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## I.—OPHTHALMIAS IN EGYPT.

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In previous Reports the distinction between the acute and the chronic forms of eye disease prevalent in Egypt has been made clear. But as questions are so often still asked on this point, it may here be repeated that the acute diseases of rapid onset caused by infection of the conjunctiva with such micro-organisms as the gonococcus, the bacillus of Koch-Weeks, the diplobacillus of Morax-Axenfeld, or the pneumococcus, are to be sharply distinguished from chronic granular conjunctivitis or trachoma.

The acute ophthalmias may, without treatment, cause blindness in a few days, and in addition a profuse discharge may last for weeks or months. Chronic granular lids or trachoma has an insidious onset, even people may become infected by the disease and have it for a long time without ever being aware of the fact. It is not infrequent for infection by trachoma to be acquired by the subject of an acute ophthalmia who goes to a doctor for treatment and who gets cured but takes away from the clinic an infection with trachoma; this is especially the case with babies. Conversely a practitioner who does not sterilize his hands after everting the lids of a gonococcal conjunctivitis, an almost impossible feat unless he wears indiarubber gloves, is likely to infect the next patient he touches, who comes to him for treatment for trachoma, with acute ophthalmia.

Acute conjunctivitis may be rapidly cured if suitable treatment is applied, while without treatment or with old-fashioned poultices, or fomentations with occlusion of the eye by a pad and bandage, irreparable damage may result. The form of treatment which is applied to all forms of the acute infection of the conjunctiva was described in the last Report and may be here quoted: "First the conjunctival sac is thoroughly flushed with eusol solution; secondly the conjunctiva is thoroughly swabbed with 2 per cent silver nitrate solution applied by means of a pledget of cotton wool wrapped closely round the end of a glass rod, different rods being used for the two eyes; thirdly the patient sitting before a bowl of freshly made eusol solution in which are floating pledgelets of cotton wool, continually swabs his eyes with the solution, allowing if possible some of the fluid to enter his eyes. In addition to this a hospital attendant swabs the patient's eyes at intervals of a half an hour. In the case of babies and children, the mother is taught to do the constant wash in the absence of the attendant. This goes on from 8 a.m. till 3 p.m. Antiseptic drops are then instilled into the patient's eyes by the attendant, or in severe cases the conjunctiva is again swabbed with silver nitrate solution by the surgeon. The patient then goes home and returns the following morning at 8 a.m. to continue similar treatment. Home treatment with the average out-patient is usually quite ineffective but is often ordered. Very few of these cases are admitted as in-patients, as they would require the provision of scores of extra beds in each hospital for their accommodation. Cases complicated by ulceration of the cornea are admitted when possible.

"This form of treatment has been carried out for more than ten years at the Egyptian Ophthalmic Hospitals with surprinsingly good results. In fact it may be said that if the treatment of an acute ophthalmia is commenced before corneal ulceration has occurred this complication rarely develops. This conclusion is based not merely on our clinical experience, but on detailed bacteriological and statistical investigations."

The eusol solution must be freshly made of active eupad powder and ordinary water of the strength of  $2\frac{1}{2}$  per cent, which is shaken up in a demijohn from time to time for twenty-four hours, after which the solution is filtered through cotton wool.

The remarkable correspondence between the rise of the atmospheric temperature in the spring and summer, the number of patients who apply for out-patient treatment, and the number of bacteriological examinations which show the presence of the gonococcus or the bacillus of Koch-Weeks, is very interesting; detailed studies have been made in previous Reports.

Beginnings have been made to obtain a fly count during the whole year at each of the permanent hospitals for the purpose of determining the relationship, if any, of flies to rise and fall of temperature. However, it will not be until the Ophthalmic Report for 1922 is published that any results are to be expected, as the fly traps in use at the present time do not give an accurate measure of the number of flies in the atmosphere.

Chronic granular conjunctivitis or trachoma is a much less dangerous disease as far as the sight is concerned. The organism causative of the condition is quite unknown. In Egypt, where between 90 and 95 per cent of the Egyptians show evidence of the disease,



either in an active or cicatrized form, it is time that efforts were made to institute a serious research into the prime cause of the disease. The time has passed when ophthalmic surgeons, with their inadequate training in experimental zoology or bacteriology, can expect to discover the origin of a disease which up to the present has baffled all investigators, and it is by the labours of a scientist, who has already shown his aptitude for research in other directions, that the problem of the origin of trachoma must be sought.

It is encouraging to read in *Archives d'Ophtalmologie* for December 1920 an article by Dr. de Lapersonne, Professor of Ophthalmology at the University of Paris, which may be quoted :—

“ A côté des preuves expérimentales que nous commençons à réunir, toute l'histoire du trachome, qu'il est inutile de rappeler ici, démontre bien l'origine infectieuse et contagieuse de la maladie. Avec un foyer principal en Egypte, connu de toute antiquité, le trachome règne à l'état endémique sur tout le littoral méditerranéen.

“ C'est un fait parfaitement reconnu aujourd'hui que toutes les infections conjonctivales aiguës préparent le terrain pour la conjunctivite granuleuse. Il suffit de consulter les statistiques de Lakah et Khoury et, plus récemment, de la Section Ophtalmologique du Service de Santé égyptien, pour voir l'extrême fréquence des infections conjonctivales aiguës dans ce pays. Les examens bactériologiques montrent 46 pour cent d'infections gonococciques et 23 pour cent d'infections à bacilles de Weeks. A côté de cela les inspections ophtalmologiques des écoles d'Egypte accusent encore en 1916 une proportion de 80 à 100 pour cent d'enfants granuleux dans la population scolaire.

“ Nos confrères anglais, et à leur tête le docteur MacCallan, ont entrepris depuis plus de quinze ans, avec une tenacité et une méthode remarquables, la lutte contre le fléau et ils sont arrivés à des résultats très encourageants. Si la fréquence est encore considérable chez les enfants, la proportion des complications graves est très réduite grâce aux mesures prophylactiques et thérapeutiques qu'ils ont appliquées.”

In Egypt all practitioners are acquainted with the division of trachoma into four stages representing the phases of the life history of the disease. Without such a classification it is impossible to obtain a clear idea of the many and varied appearances the disease may present. As it is not yet well known in England or America it may be outlined here, even at the risk of being tedious to those who have read previous Annual Reports. It is described at length in “Trachoma and its Complication in Egypt,” Cambridge University Press, 1913; and in *Archives d'Ophtalmologie*, September 1911; it may be shortly outlined here :—

Trachoma stage I : seen typically soon after infection has taken place as slight roughnesses forming greyish dots.

Trachoma stage II : is divided into *a*, *b*, and *c* :—

*a* Greyish follicles project above the surface of the conjunctiva which rupture on pressure, allowing the escape of gelatinous material.

*b* Raspberry-like papillæ mask the typical follicles. Two sub-varieties may be distinguished.

*b'* Which is unmixed trachoma.

*b''* Which is trachoma complicated by spring catarrh and is rare in Egypt; there is in these cases a definite eosinophilia.

*c* is trachoma complicated by a superadded acute conjunctivitis.

Trachoma stage III : where cicatrization has begun.

Trachoma stage IV : where cicatrization is complete.

Nothing new has been discovered in the treatment of trachoma during the past year. Much has been written on this subject and an ophthalmic surgeon in Europe has prepared a secret remedy, a powder, which is advertized to cure all kinds of trachoma. Its inventor, however, informed me verbally that it was useless for stages I and II of the disease, but he stated that it really was of value in old cases of stage III with much pannus. I have seen some of the results of treatment and have not satisfied myself that any ordinary treatment would not have produced as good a result.

Trachoma stage *II b''* or trachoma complicated with vernal conjunctivitis (spring catarrh) is more common than was formerly thought to be the case. While in some patients the clinical appearances are typical, in others it is not possible to diagnose the condition unless a microscopical examination of the conjunctival secretion has shown the presence of a marked eosinophilia. This eosinophilia of the conjunctival secretion in spring catarrh is said to be pathognomonic: it is not a mere filtration through the tissue from the blood stream as it is not present in the conjunctival secretion of cases of helmin



thiasis (ankylostomiasis or bilharziasis) in the absence of spring catarrh. Nor is eosinophilia present in unmixed trachoma.

The majority of the cases of undoubted spring catarrh which we have examined recently have presented an eosinophilia of the blood as well as of the conjunctival secretion. However, in a subtropical country in which an average of 50 per cent of the population have Ankylostoma ova in their fæces, and a still larger proportion are sufferers from bilharziasis, the presence of eosinophilia of the blood is not of much interest to the ophthalmologist. Anatomically the specimens of spring catarrh obtained by Heisrath's combined excision of conjunctiva and tarsus do not present any characteristic appearances beyond the presence of the eosinophile cells in the tissues and trachoma follicles. There are of course the appearances of chronic inflammation with papillary hypertrophy, but the great thickening of the epithelium described as a constant phenomenon is not present.

## II.—CLINICAL CONDITIONS OF SPECIAL IMPORTANCE IN EGYPT.

### GLAUCOMA, OPTIC ATROPHY, CATARACT, OTHER INTERESTING CASES.

During the year more than 2,000 cases of glaucoma were seen out of a total of 108,000 cases examined, of whom 735 were submitted to operation. The operation of election has always been the trephining of the cornea-sclera with a 1½-millimetre trephine and performing an iridectomy through the trephine hole. 425 such operations were performed, and in only one case did any infection of the eye through the trephine gap result subsequent to convalescence, which is reported at the end of this section. 310 iridectomy operations were performed, either because there was a cataract and the operation was preliminary to extraction, or because the case had acute symptoms, or for other less frequent reasons.

Optic atrophy is a common condition in Egypt; during the last year 205 cases were seen. The most frequent causes are post-neuritic degeneration, infectious diseases (such as typhus), as a sequela of diseases of the retina and choroid, while the cause of 32 cases remains quite unknown.

There is a good deal of senile cataract in the country, 1,709 cases having been reported. As such a large number of the cases seen have already had their cornea damaged or are already blind from glaucoma, it was only possible to operate on 325 cases. The visual results of cataract operations are disappointing to the surgeon who has practised in Europe, an apparently perfect operation done for a fellah, and practically all our patients are uneducated folk, often only results in obtaining a visual result of 6/60 or 6/36 with which the illiterate patient is fully satisfied: with 3/60 or 4/60 vision a fellah is often able to earn his living with his fass (spade), and there is no doubt that some patients refuse to disclose their full visual acuity. As an example the operator mentioned in last year's Report as A.F.M.C. had the following results during 1920:—

Visual results with corrections:—

	Complicated Cases.	Non-complicated Cases.
6/6, 6/9, 6/12... ..	—	1
6/18, 6/24 ... ..	—	2
6/36, 6/60 ... ..	3	14
5/60, 4/60, 3/60 ... ..	—	6
2/60, 1/60 ... ..	1	—
P.L. and no P.L. ... ..	3	3
Vitreous lost ... ..		1
Suppuration resulting in excision ... ..		—

Interesting cases are reported to the Director from each hospital every week and published monthly. Among these were 23 cases of optic neuritis, 5 cases of albuminuric retinitis, 3 cases of embolism of the central artery of the retina, 33 cases of luxation or subluxation of the lens, 18 cases of endogenous iritis, 6 cases of ophthalmia neonatorum (a condition which, strange to say, is rare in Egypt, although gonococcal conjunctivitis



is so common), 22 cases of malignant disease of the globe or orbit, 8 cases of fly blown orbit, and 20 cases of choroido-retinitis.

The case of late infection after trephine operation for glaucoma mentioned above, case No. 28112, Zagazig, was reported by Dr. Barsoum. This patient, aged 40, was first seen in November 1918, coming for removal of pterygium; a smear from the conjunctiva showed the presence of the Koch-Weeks bacillus. After treatment the pterygium was removed by Dr. Bakly under cocain on November 24; this was followed by a sub-acute glaucoma in both eyes, with steamy cornea, dilated pupil and increased tension. By the use of eserine the pupils were contracted and the tension reduced to 15 millimetres by Schiotz's tonometer, the vision being R. 6/36, L. 6/60. Another sub-acute attack of glaucoma which was controlled by the use of eserin supervened on December 4, on which day Dr. Barsoum performed the operation of trephining with iridectomy on both eyes. On December 30, R.V. 6/12, L.V. 6/12. Both eyes a little below normal, Schiotz's tonometer showing 7 millimetres only in each. There was a good filtering scar in each eye. Retinoscopy R. and L.=+2 dioptries.

Sixteen months later, on April 27, 1920, the patient came up again, with a hypopyon in the right eye, the left eye being normal. A smear from the conjunctiva was negative; there was œdema of the conjunctiva over both trephine holes. Under treatment by hot bathings and atropin the hypopyon disappeared by May 6 and the patient was discharged cured on June 1, with R.V. 6/24, L.V. 6/18.

This highly interesting case is supposed to be one of those extremely rare late infections through the trephine hole, though with what organism it is impossible to say as the smear from the conjunctiva was negative; cultures from the conjunctiva was not made. All these observations were recorded by Dr. Barsoum.

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### III.—BLINDNESS IN EGYPT.

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Out of the 108,000 patients examined at the hospitals last year nearly 10,000 were found to be blind in one eye and 5,000 were found to be blind in both eyes. The principal cause of blindness was acute conjunctivitis; cataract, glaucoma, iritis, and optic atrophy were also responsible for a great deal of the blindness.

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### IV.—PATHOLOGICAL REPORT.

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The Laboratory of Ophthalmic Pathology has been extended during the year at the expense of several friends in Egypt and in England. It is situated in close proximity to the Stationary Ophthalmic Hospital at Gîza.

There are few ophthalmic laboratories in the world which have such rich material. The total number of examinations made, excluding bacteriological examinations, during last year, was 397. The prevalence of the results of corneal ulceration caused in the majority of cases by acute conjunctivitis is shown by the large number of globes, 157, sent for examination after being excised for painful secondary glaucoma, the origin of which was an anterior synechia or adherent leucoma. 51 globes were examined which had been excised for phthisis bulbi.

The opportunity of examining during the course of one year at the same ophthalmic laboratory 26 cases of tumour of the globe and conjunctiva cannot be frequent.

#### CONJUNCTIVA.

The growths originating in the conjunctiva consisted of 4 angiomas, 1 granuloma, and 2 sarcomata. The angiomas were classified as follows: 3 were of cavernous type, of which two were ordinary nævi in babies and one in a young adult; one was a lymphangiectasis in an adult of the type described by one of us (MacCallan) in the transactions



of the Ophthalmological Society of the United Kingdom in 1903, the Pathological Report of which by Parsons would apply to our recent case. The granuloma occurred in a girl of 14 years of age and is said to have been the size of a small nut projecting between the lids; it was pedunculated and attached to the conjunctival surface of the lower lid. It probably arose from a chalazion which had broken through the conjunctiva. Both the sarcomata occurred in children, one of whom was 3 and the other 4 years old; one of them of the spindle-celled variety grew from the conjunctival surface of the lid; the other was a large-celled sarcoma and probably arose from the bulbar conjunctiva.

#### LIMBUS.

The growths arising at the limbus were one endothelioma, one papilloma, and 8 epitheliomata. All of them were in persons of middle age or older, except one case of papilloma showing malignant tendencies in a man of 20 years.

#### CORNEA.

The growths found were 5 granulomata, all of them entirely corneal in origin.

#### CHOROID.

There were one melanotic sarcoma and one pigmented endothelioma, both in persons of mature years.

#### RETINA.

There were two cases of glioma occurring in children.

#### PALPEBRAL SPOROTRICHOSIS.

An interesting case of palpebral sporotrichosis was studied by the pathologist Dr. Sobhy Bey and is thus described by him: "The patient n<sup>o</sup> 30617, Stationary Ophthalmic Hospital, Gîza, a male 30 years of age, a laundry man, was sent to me on March 26, by Dr. Barrada, dermatologist at Qasr el 'Aini Hospital.

"*Past History*.—A few years ago, the patient had an ulcer on the penis followed by an eruption which was accompanied by itching. Six months ago, the patient had redness and swelling of the left eye with discharge. This condition remained for a week and was treated by some kind of lotion and drops. This eye has been quite healthy since then.

"*Present History*.—Six months ago, the patient noticed a swelling at the inner canthus which shortly was followed by a swelling of the upper and lower lids. The patient then sought the advice of Dr. Galal of Qalawoon Ophthalmic Hospital who ordered him an ointment and hot bathings. After a week's treatment the swelling at the internal commissure ulcerated and Dr. Galal, suspecting its specific nature, sent him to Dr. Barrada for an opinion.

"*Description*.—A shallow ulcer is seen on the skin just below the lower canaliculus of the left eye, 3 millimetres by 8 millimetres in area with a brawny swelling around, giving to it a sensation of hardness, the ulcer itself feels soft. This brawny swelling spreads up and down in a concentric manner round the palpebral aperture, the outer commissure being free from œdema. In the skin of the lower lid, there is a nodule as big as a pea, the upper border of which touches the lower border of the tarsus. There is another swelling in the upper lid similar to the lower one, but a little smaller; the skin over these nodules is œdematous and does not move over them. There is a cord like resistance from the upper nodule going to the ulcer. There is a similar one in the lower lid that can hardly be felt. The preauricular gland is a little enlarged. Temperature was 36·8° and



showed no rise later. A well marked sore on penis, enlarged glands can be felt all over the body except in the occipital region. The throat was red and injected, but there was no ulceration. Patient was addicted to smoking. He was seen again on March 27, 1921, in the Ophthalmic Laboratory, Gîza. Smears and cultures were taken from the ulcer before cleaning it and from the discharge covering its base on serum agar, blood agar, and simple agar. The ulcer was then cleaned with sponges, freeing its base from the discharge; and other slides were taken and other tubes were inoculated. To irritate the ulcer in order to obtain a serous discharge for the examination of Schaudinn's spirochetæ according to the method of Bury by Indian ink, it was rubbed with a sponge impregnated with alcohol. A Pravaz syringe was then prepared and the needle was introduced into the lower nodule after painting it with iodine tincture. A very small quantity of pus was obtained, and this was smeared on the surface of a simple agar tube. This last tube was put in the incubator. The blood was examined at the Public Health Laboratory for Wassermann's reaction and was found positive.

“ *Report of the Laboratory Examination.*—The first slide, taken directly from the ulcer, was stained with methylene blue and a long branching mycelium with two conidia attached to it was found. A more prolonged research revealed nothing of the sort in all the other slides except two bodies looking like spores (or conidia). The three slides prepared according to Bury's method were exhaustively examined and the result was negative for the spirocheta pallida. I stained more slides with the slow and quick methods of Giemsa and no spirilla could be found. The tubes inoculated were examined from time to time. Some of these remained quite sterile while others only showed a few growths of cocci or some yeast colonies and one colony of mycelium. This latter was of a clear chocolate colour, rounded, of 5 millimetres diameter and 2 millimetres high, of an irregular edge and a surface showing protuberances and convolutions. It was not easy to make a smear from it as it was hard to get through it with the needle and seemed very adherent to the media. A penetration of this colony in the media could not be made out as the latter was not clear, being a blood agar. A smear showed a branching mycelium of a voluminous size. The threads of the mycelium were ribbon like, *i.e.* flat. Their branching was at an obtuse angle and in general they did not look at all like the threads of sporotrichosis. The agar tube inoculated with the pus aspirated from the nodule and kept in the incubator was examined on the fifth day. Besides one colony of a staphylococcus albus there were strewn on the surface of the agar other small ones, with a smooth rounded surface which had a defined edge. They looked at first clear, then becoming opalescent when old. A smear was made from these little colonies and was stained with methylene blue. I could see short threads or short stems at their bifurcation into two or more. The threads showed septa enclosing short spaces. The spaces took lightly the stains as if they were spores. The mycelium looked either straight or beaded from the swelling produced at the clear spaces. The conidia were single, *i.e.* one at the end of each thread or free. The free conidia were round, circular in shape and not oblong, surrounded by a capsule which seemed to take the blue stain of methylene blue while the inside was pale. Another interpretation of this character, the peripheral part of the protoplasm took the stain, the inside and the capsule remaining clear. This description is different from that given to the two varieties of sporotrichosis, Shenki and Beurmannii, where the conidia are multiple and oblong, and these take the stains readily. The tube was then taken out of the incubator and left at the room temperature. The colonies increased in number, coalesced but never changed their colour and remained always of a white opaque colour. This made me classify this strain in the variety of sporotrichosis described by Dor or an allied strain. Proper glucose and glycerine media were then prepared and subcultures were tried on these as well as on blood serum on many occasions and all efforts remained futile.

“ *Experiments on Animals.*—A thin emulsion of the fungus was prepared and injected under the skin of the ear of a young rabbit. Some of the pus aspirated from the nodule was injected under the skin of a guinea pig to exclude the presence of tuberculosis. The rabbit was kept for months under observation and showed no lesions; the guinea pig disappeared from its cage. Subcultures from the original tubes were tried again on glycerine glucose bouillon which was left at the room temperature. A very thin film appeared on the surface of the bouillon with some turbidity of the latter. This showed again the presence of the fungus. The blue litmus bouillon media turned a bit reddish, then bleached with absence of gas formation. These cultures will be used again for animal inoculations.



“ *Diagnosis.*—Clinically we were confronted with an ulcer accompanied by lymphangitis. It is true any ulcer (septic) might be followed by a lymphangitis. This is more common with syphilis, tubercle, glanders, and sporotrichosis. The ulcer was not typically hard. Taking the observation of Dr. Galal as true, I disapproved of the possibility of its being venereal, as in these cases the lymphangitis comes on after the ulceration and not before. In other words the lymphangitis seen in venereal diseases is not specific, spirochetæ do not form lymphangitis. This is due to mixed and secondary infection as in phagedenic ulcers, etc. I at once thought of the possibility of the lymphangitic form of sporotrichosis, tubercle and glanders did not appeal much to me. However, the microscopic examination and the course of the case under treatment decided the diagnosis.

“ *Treatment.*—These cases do badly if they are treated surgically, and one is warned against using the scalpel to open the nodules or abscesses formed by this kind of fungus. The iodide treatment is specific. On April 3, potassium iodine was ordered in the dose of 2 grammes daily which was increased every three days. Improvement appeared from the first week. On April 23, ten grammes of potassium iodide were reached daily. The ulcer healed up and the swelling of the upper and lower lids diminished in size. On April 25, potassium iodide was stopped. On May 4, potassium iodide reordered 2 grammes daily for a fortnight, and then stopped altogether.

The object of this long course of potassium iodide was to prevent any recurrence. On June 19, the patient was seen showing no signs of his disease except some brown pigmentation of his lids and there were no signs of recurrence. Wassermann remained positive after all this potassium iodide treatment.

“ The patient was advised to undergo a complete mercurial and arsenical treatment for his syphilis.

“ As far as I am aware, this is the first case of sporotrichosis ever published in the medical literature or proved by bacterial examination in this country. In general surgery and medicine, this disease might not be so rare as one thinks, but one must understand that it is very rare in ophthalmic practice.”

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## V.—THE OPHTHALMOLOGICAL SOCIETY OF EGYPT.

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The Ophthalmological Society of Egypt held its annual meeting at the School of Medicine on March 4. The programme was as follows :—

### *List of Communications.*

- Dr. Fischer : “ Report of the Committee on the Prophylaxis of Trachoma.”  
Dr. M. T. Sadik and Dr. Khairat : “ Notes on Severe complicated Cases of Purulent Ophthalmia with Herpetiform Eruptions.”  
Dr. M. A. El Bakly : “ Three Cases of Streptothrix Infection of the Conjunctiva.”  
Dr. Zacharia Matta : “ Some Notes on Blepharitis.”  
Dr. MacCallan and Dr. Sobhy Bey : “ Malignant Growths of the Globe during 1920”  
Dr. Abdel Messih Girgis : “ Retinal Hæmorrhage after non-perforating Injury.”  
Dr. Sobhy Bey : “ The Sclero-corneal Junction.”  
Dr. Cassimatis : “ Theurapeutic Value of Injections by Cow's Milk.”  
Dr. M. Tewfik : “ A case of Double Tarsitis with Meibomian Cyst.”  
Dr. M. T. Sadik : Case of acquired Ptosis.”  
Dr. Abdel Messih Girgis : “ Two Iridotomies for Glaucoma.”

The Society has a membership of seventy-eight, and is affiliated to the Ophthalmological Society of Great Britain and Ireland. The Society publishes its transactions in the Annual Bulletin of the Ophthalmological Society of Egypt ; copies may be obtained from the Honorary Secretary of the Society, c/o Department of Public Health ; price P.T. 20 (or 4s. 6d.).

The important Report of the special sub-committee appointed by the Society at its Annual Meeting in 1920, to draw up a scheme for the prophylaxis of trachoma, was



forwarded to the Under-Secretary of the Department of Public Health. The Under-Secretary, after referring the technical points to the Director of Ophthalmic Hospitals, made a very sympathetic reply to the suggestions contained in the Report. It is unfortunate that the present time is one in which the strictest economy is necessary : so far from new credits being granted for affairs of great public utility, all departments are being asked to cut down their present rate of expenditure. It is to be hoped that money will be forthcoming later for carrying out the sub-committee's recommendations.

## VI.—OPHTHALMIC CLINICS AT GOVERNMENT PRIMARY SCHOOLS.

Ophthalmic clinics are now established at all the Government Primary Schools in capital towns of provinces at which there is a permanent ophthalmic hospital. Their purposes are as follows :—

- (1) The prophylaxis of acute ophthalmias and of trachoma.
- (2) The treatment of acute ophthalmias and of trachoma.
- (3) The systematic testing of the visual acuity of all pupils and where necessary the prescription of suitable spectacles. In the absence of corneal opacity and active trachoma all pupils with less than 6/18 in each eye are refracted under atropin.
- (4) Advice is given to the parents of the pupils whenever the performance of a more serious operation is advisable : such operations may be performed during the school session without charge at the ophthalmic hospital if desired.
- (5) The preparation of a complete series of statistics ; the preparation of statistics alone without an organized system of treatment is devoid of any value to the Government, the school, or the pupil.

The utility of the clinics is shown by the reduction of the more serious stages of trachoma from 62 per cent at Tanta in 1907, to an average of 8 or 9 per cent at all the schools at the present time.

I have previously pointed out that trachoma appears to be closely related to the age of the pupils, the more serious stages being common in the first school year and less common in the fourth year. This is the result of the gradual process of cicatrization which the life history of the disease manifests. These serious stages diminish from approximately 33 per cent in the first year, 15 per cent in the second year, 11 per cent in the third year, to 8 per cent in the fourth year. These details for the past four sessions in which treatment have been carried out are here given :—

COMPARISON OF SERIOUS STAGES OF TRACHOMA STAGES I AND II.

CLASS.	Per Cent.			
	1916-1917	1917-1918	1919-1920	1920-1921
First year ... ..	45·5	41·7	31·2	33·3
Second „ ... ..	28·1	15·3	14·8	15·7
Third „ ... ..	12·1	9·8	8·5	10·9
Fourth „ ... ..	6·7	2·3	7·6	7·8

It was pointed out in last year's Report that the careful application of antiseptic drops to the eyes of pupils in the school clinics in place of the more drastic brossage, which is the rule at the majority of schools and hospitals, appeared to have an important effect in arresting the development of trachoma follicles and leading to their replacement by a satisfactory cicatricial tissue. Experience does not seem to bear out this observation, and although there is a certain amount of improvement again at Faiyûm School, the same treatment applied to a primary school at Alexandria resulted in a worse state at the end of the year than at the beginning, the more serious stages of trachoma (Stages I and II), being increased from 22 per cent to 27 per cent.



TABLE I.—SYNOPSIS OF WORK OF HOSPITALS SINCE 1904.

Hospitals in existence :—	1904 to *1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Travelling ... ..	2	2	3	4	5	4	—	4	4	5	5	5
Permanent ... ..	1	1	2	4	7	10	11	13	13	13	13	15
New patients treated ... ..	41,823	14,342	20,488	28,029	40,670	50,126	52,752	68,304	81,529	82,316	76,525	94,921
Total attendances of out-patients ... ..	616,792	190,247	236,411	341,211	544,267	686,012	735,919	849,366	903,751	922,614	906,961	1,064,509
Operations performed ... ..	32,758	11,486	14,322	21,315	30,648	40,710	42,146	54,205	59,581	54,277	49,974	56,503
In-patients ... ..	1,173	443	678	909	1,807	2,071	2,274	2,454	2,847	3,264	3,613	4,232
Details :—												
Patients examined ... ..	41,987	25,514	31,274	43,668	62,233	75,398	71,930	94,447	100,410	90,668	83,577	108,113
Patients regularly treated ... ..	19,886	14,342	20,488	28,029	40,670	50,126	52,752	68,304	81,529	82,316	76,525	94,921
Incurable cases ... ..	6,852	1,776	2,620	7,200	9,544	10,554	7,765	9,871	9,675	5,650	4,467	6,400
Blind in one eye ... ..	3,305	2,438	3,196	4,115	5,360	6,425	5,637	7,042	9,385	8,969	8,537	9,833
Blind in both eyes ... ..	2,237	3,010	2,811	2,824	3,878	3,591	2,992	3,504	4,611	4,261	4,278	5,154
Trichiasis cases examined ... ..	18,219	7,507	7,871	13,176	17,329	21,624	19,220	22,214	27,341	26,164	20,052	23,154
“ eyes operated on and cured ... ..	5,390	2,022	3,933	6,942	11,700	16,542	19,149	26,094	30,200	28,890	24,611	27,081
New patients treated per age :—												
Under 1 year ... ..	763	457	761	1,495	2,700	2,472	3,023	4,031	5,168	6,434	4,824	6,306
From 1 to 5 years ... ..	2,230	1,497	1,903	3,317	4,631	6,394	5,762	7,865	7,938	8,607	8,562	11,277
“ 6 to 10 ” ... ..	2,344	4,469	2,101	3,210	4,786	5,634	5,229	6,985	9,217	9,213	9,097	10,544
“ 11 to 15 ” ... ..	2,143	1,475	2,051	3,056	3,799	4,570	5,651	6,275	7,965	8,483	7,479	10,126
“ 16 to 20 ” ... ..	1,985	1,499	2,067	2,588	3,253	3,949	4,491	5,752	6,748	6,826	6,159	7,096
“ 21 to 40 ” ... ..	6,359	4,845	6,116	8,167	12,679	17,257	18,492	23,017	28,028	26,904	25,671	30,732
“ 41 years and over ... ..	4,004	3,100	5,589	6,196	8,822	9,850	10,104	14,379	16,465	15,849	14,733	18,840

\* In 1904 there was only one travelling ophthalmic hospital and there was no permanent ophthalmic hospital until 1907.



TABLE II.—DETAILS OF CAPITAL EXPENDITURE.

HOSPITALS.	Date at which opened.	Government Grant.	Public Subscription or Private Benefaction.	Provincial Councils.
		L.E.	L.F.	L.E.
No. 1 Travelling ... ..	1904	—	1,000	—
No. 2 „ ... ..	1905	—	1,000	—
Tanta ... ..	1908	8,463*	—	—
Asyût ... ..	1911	8,817	5,004	—
Mansûra ... ..	1912	—	5,000	—
Beni Suef ... ..	1912	—	4,000	—
Asyût Travelling ... ..	1912	—	—	720
Zagazig ... ..	1913	—	—	4,286
Mahalla el Kubra... ..	1913	—	—	2,400
Kafr el Zaiyât ... ..	1913	—	—	2,200
Daqahliya Travelling ... ..	1913	—	—	720
Damanhûr ... ..	1914	—	—	5,000
Shibîn el Kôm ... ..	1914	—	5,422	—
Sohâg ... ..	1914	960	4,000	—
Minya ... ..	1915	—	—	5,500
Santa ... ..	1915	—	—	2,600
Faiyûm ... ..	1916	—	—	4,000
Gîza Stationary ... ..	1918	—	—	1,500
Benha ... ..	1920	—	14,000	—
Qena... ..	—	—	12,400	2,800
TOTAL ... ..		18,240	51,826	31,726
GRAND TOTAL ... ..			101,792	

\* The contractor who built the hospital lost L.E. 942 which above has been added to the contract price.

TABLE III.—NEW PATIENTS TREATED PER MONTH.

January ... ..	4,226
February ... ..	3,276
March ... ..	5,167
April ... ..	7,505
May... ..	8,887
June ... ..	7,933
July ... ..	12,323
August ... ..	10,331
September ... ..	9,687
October ... ..	10,299
November ... ..	8,504
December ... ..	6,783
TOTAL ... ..	94,921

TABLE IV.—NUMBER OF PATIENTS TREATED AND OPERATIONS PERFORMED AT THE  
OPHTHALMIC HOSPITALS DURING 1920.

HOSPITALS.	NUMBER OF PATIENTS.	HOSPITALS.	NUMBER OF OPERATIONS
Tanta ... ..	7,506	No. 1 Travelling... ..	4,225
Asyût ... ..	7,262	Tanta ... ..	3,988
No. 2 Stationary, Gîza ... ..	7,015	Asyût ... ..	3,920
No. 1 Travelling ... ..	6,341	Sohâg ... ..	3,458
Shibîn el Kôm ... ..	5,436	Mansûra ... ..	3,295
Minya ... ..	5,395	No. 3 Travelling, Barrage... ..	3,242
Faîyûm... ..	5,351	No. 2 Stationary, Gîza ... ..	3,222
No. 3 Travelling ... ..	5,178	Faîyûm ... ..	3,203
Mansûra ... ..	5,112	Beni Suef ... ..	3,143
Beni Suef ... ..	4,990	Minya ... ..	3,115
Sohâg ... ..	4,309	Zagazig ... ..	2,864
Zagazig ... ..	4,239	Shibîn el Kôm ... ..	2,647
Damanhûr ... ..	4,219	Daqahliya Travelling... ..	2,331
Asyût Travelling... ..	3,717	Santa ... ..	2,268
Mahalla el Kubra ... ..	3,393	Benha ... ..	2,261
Benha ... ..	3,319	Kafr el Zaîyât ... ..	2,237
Kafr el Zaîyât ... ..	3,173	Damanhûr ... ..	2,062
Santa ... ..	3,032	Mahalla el Kubra ... ..	1,895
Alexandria Branch ... ..	3,026	Asyût Travelling... ..	1,804
Daqahliya Travelling ... ..	2,908	Alexandria Branch ... ..	1,323

N.B.—Number of working months :—

No. 1 Travelling ... ..	10 $\frac{1}{3}$	
No. 3 Travelling ... ..	10 $\frac{1}{3}$	
Benha... ..	7	(Opened on June 1, 1920.)
Alexandria Branch... ..	6	(Put under supervision of Ophthalmic Section from July 2, 1920.)
Daqahliya Travelling ... ..	9 $\frac{2}{3}$	
Asyût Travelling ... ..	6 $\frac{2}{3}$	
Other hospitals... ..	12	

TAKLE V.—AVERAGE NUMBER OF OPERATIONS PERFORMED PER MONTH AT ALL  
OPHTHALMIC HOSPITALS DURING 1920.

HOSPITALS.	MAJOR.	HOSPITALS.	MINOR.
No. 1 Travelling ... ..	203	No. 1 Travelling... ..	206
Asyût ... ..	198	Tanta ... ..	183
Benha ... ..	190	No. 3 Travelling... ..	157
Sohâg ... ..	186	Benha ... ..	133
Beni Suef ... ..	181	Asyût ... ..	129
Faîyûm... ..	178	Asyût Travelling... ..	113
Mansûra ... ..	167	Alexandria Branch ... ..	110
Zagazig ... ..	161	No. 2 Stationary, Gîza ... ..	108
No. 2 Stationary, Gîza ... ..	161	Mansûra ... ..	107
Asyût Travelling ... ..	158	Minya ... ..	103
No. 3 Travelling... ..	157	Sohâg ... ..	102
Daqahliya Travelling ... ..	157	Faîyûm ... ..	89
Minya ... ..	156	Daqahliya Travelling ... ..	85
Tanta ... ..	150	Shibîn el Kôm ... ..	83
Shibîn el Kôm ... ..	138	Beni Suef ... ..	81
Damanhûr ... ..	117	Santa ... ..	80
Kafr el Zaîyât ... ..	112	Zagazig... ..	79
Alexandria Branch ... ..	111	Kafr el Zaîyât ... ..	75
Santa ... ..	109	Mahalla el Kubra ... ..	58
Mahalla el Kubra ... ..	100	Damanhûr ... ..	55



TABLE VI.—CONJUNCTIVAL MICRO-ORGANISMS FOUND DURING 1920.

ORGANISMS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Goconoccus ...	102	64	97	167	493	566	1,097	1,084	1,097	1,061	944	305	7,077
Koch-Weeks ...	70	49	101	278	499	434	362	334	323	382	305	165	3,300
Morax-Axenfeld ...	81	78	120	173	167	182	221	166	97	114	95	75	1,569
Pneumococcus ...	7	13	16	38	65	29	29	23	23	26	31	16	316
Xerosis ...	16	21	23	31	26	30	30	22	18	38	43	22	320
Staphylococcus ...	1	1	—	2	3	2	4	—	1	—	1	1	16
Micrococcus ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Streptococcus ...	—	—	—	—	1	2	3	—	—	—	—	1	7
Other organisms ...	1	7	7	20	14	12	42	12	5	—	3	17	140
TOTAL ...	278	233	364	707	1,268	1,257	1,788	1,641	1,564	1,621	1,422	602	12,745
Negative ...	95	99	151	182	239	296	266	205	177	265	239	130	2,350
GRAND TOTAL ...	373	332	515	895	1,507	1,553	2,054	1,846	1,741	1,886	1,661	732	15,095



TABLE VII.—RELATION OF VARIOUS CONJUNCTIVAL MICRO-ORGANISMS TO MONTHLY INCIDENCE OF ULCERATION OF CORNEA.

	GONOCOCCUS.				KOCH-WEEKS.				PNEUMOCOCCUS.				MORAX-AXENFELD.				MIXED INFECTION.			
	No. Ulceration.	Ulceration occurring in		No. Ulceration.	Ulceration occurring in		No. Ulceration.	Ulceration occurring in		No. Ulceration.	Ulceration occurring in		No. Ulceration.	Ulceration occurring in		No. Ulceration.	Ulceration occurring in			
		New Patients.	Patients under Treatment.		New Patients.	Patients under Treatment.		New Patients.	Patients under Treatment.		New Patients.	Patients under Treatment.		New Patients.	Patients under Treatment.		New Patients.	Patients under Treatment.	New Patients.	Patients under Treatment.
January ... ..	54	45	3	50	20	—	2	5	—	64	15	2	32	6	—	...	...	...		
February ... ..	45	19	—	37	11	1	9	4	—	60	18	—	34	6	—	...	...	...		
March ... ..	75	22	—	84	17	—	13	3	—	105	15	—	42	5	—	...	...	...		
April... ..	138	28	1	246	28	2	30	8	—	145	28	—	59	6	—	...	...	...		
May ... ..	392	100	1	442	56	1	50	15	—	131	36	—	33	11	—	...	...	...		
June ... ..	411	154	1	389	44	1	21	8	—	140	41	1	35	13	—	...	...	...		
July ... ..	811	285	1	312	50	—	18	11	—	170	51	—	61	13	1	...	...	...		
August ... ..	761	321	2	290	44	—	15	8	—	130	36	—	30	12	—	...	...	...		
September ... ..	789	295	13	278	44	1	8	14	—	69	28	—	21	15	—	...	...	...		
October ... ..	753	293	15	309	73	—	12	15	—	89	24	1	51	10	—	...	...	...		
November ... ..	879	253	12	344	60	1	18	13	—	61	34	—	33	13	—	...	...	...		
December ... ..	188	117	—	121	44	—	4	2	—	55	19	1	28	7	—	...	...	...		
TOTAL... ..	5,096	1,932	49	2,802	491	7	210	106	—	1,219	345	5	459	117	2	...	...	...		

TABLE VIII.—ULCERS COMPLICATING CONJUNCTIVAL INFECTION DURING 1920.

ORGANISM.	No Ulceration.	ULCERATION OCCURRING IN		Total.	Per Cent of Cases in which Ulceration occurred.
		New Patients.	Patients under Treatment.		
Gonococcus ... ..	5,096	1,932	49	7,077	27·99
Kochi-Weeks ... ..	2,802	491	7	3,300	15·09
Pneumococcus ... ..	210	106	—	316	33·54
Morax-Axenfeld ... ..	1,219	345	5	1,569	22·31
Mixed infection ... ..	459	117	2	578	20·58
TOTAL... ..	9,786	2,991	63	12,840	23·78

TABLE IX.—INCIDENCE OF PRIMARY GLAUCOMA.

VARIETIES.	1915	1916	1917	1918	1919	1920	TOTAL.
Acute ... ..	8	19	12	12	49	328*	428
Sub-acute ... ..	28	15	38	45	49	158*	333
Chronic ... ..	396	436	552	637	1,617	1,739*	5,377
Absolute ... ..	1,194	1,113	1,842	1,518	1,000	—	6,667
TOTAL... ..	1,626	1,583	2,444	2,212	2,715	2,225	12,805
Total number of patients examined	71,930	94,447	100,410	90,668	83,577	108,113	549,145
Per cent of glaucoma cases ... ..	2·26	1·67	2·43	2·44	3·25	2·05	2·33
Per cent of absolute glaucoma cases	1·66	1·17	1·83	1·67	1·19	1·45	1·49
Operations :—							
Iridectomy... ..	30	78	153	203	299	310	1,037
Trephining with iridectomy ...	464	534	655	509	450	425	3,073

\* Including 1,565 absolute monocular and binocular.

TABLE X.—AVERAGE TEMPERATURE.

The average temperature was arrived at by taking one place in Lower Egypt (Qorashîya), one place in Cairo (Gîza), and one place in Upper Egypt (Asyût), and obtaining an average figure from the mean temperature at each place on each month. This is shown in appended table, the readings being in degrees centigrade.

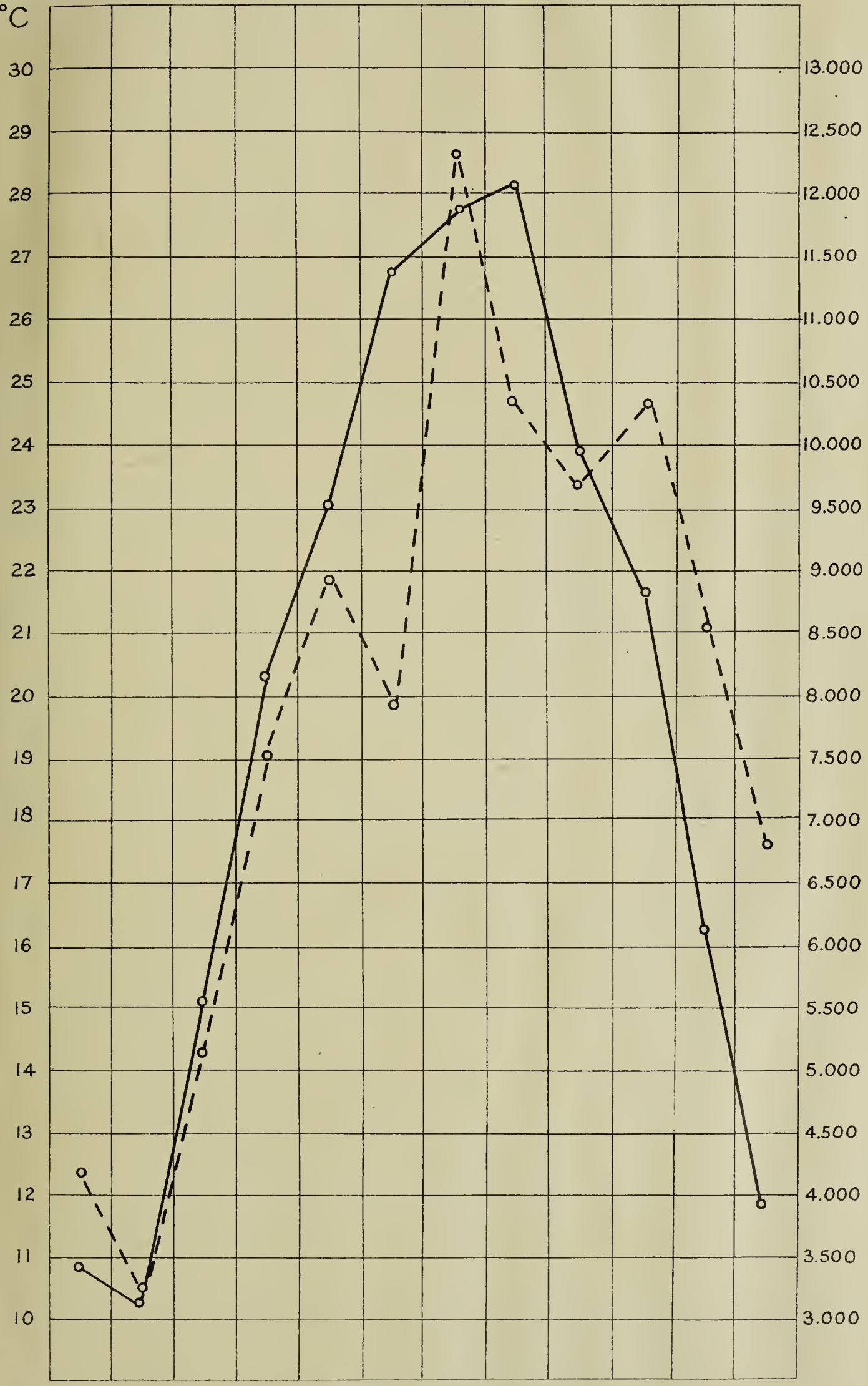
MONTH.	QORASHÎYA.	GÎZA.	ASYÛT.	AVERAGE.
January ... ..	10·6	11·0	11·0	10·9
February ... ..	9·6	10·1	11·2	10·3
March ... ..	14·0	14·5	16·6	15·0
April ... ..	18·8	19·3	23·2	20·4
May... ..	21·4	22·3	25·2	23·0
June... ..	25·4	25·7	29·2	26·8
July ... ..	26·8	26·8	29·7	27·8
August ... ..	27·0	27·0	30·4	28·1
September ... ..	23·2	23·0	25·6	23·9
October ... ..	20·8	21·2	23·2	21·7
November ... ..	15·4	16·0	17·3	16·2
December ... ..	11·6	11·8	12·2	11·9



TABLE XI.

TEMPERATURE AND NUMBER OF NEW PATIENTS TREATED

Temp. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. . Nov. Dec. N<sup>o</sup> of Cases  
°C



———— Average temperature in degrees Centigrade  
----- New patients treated per month.

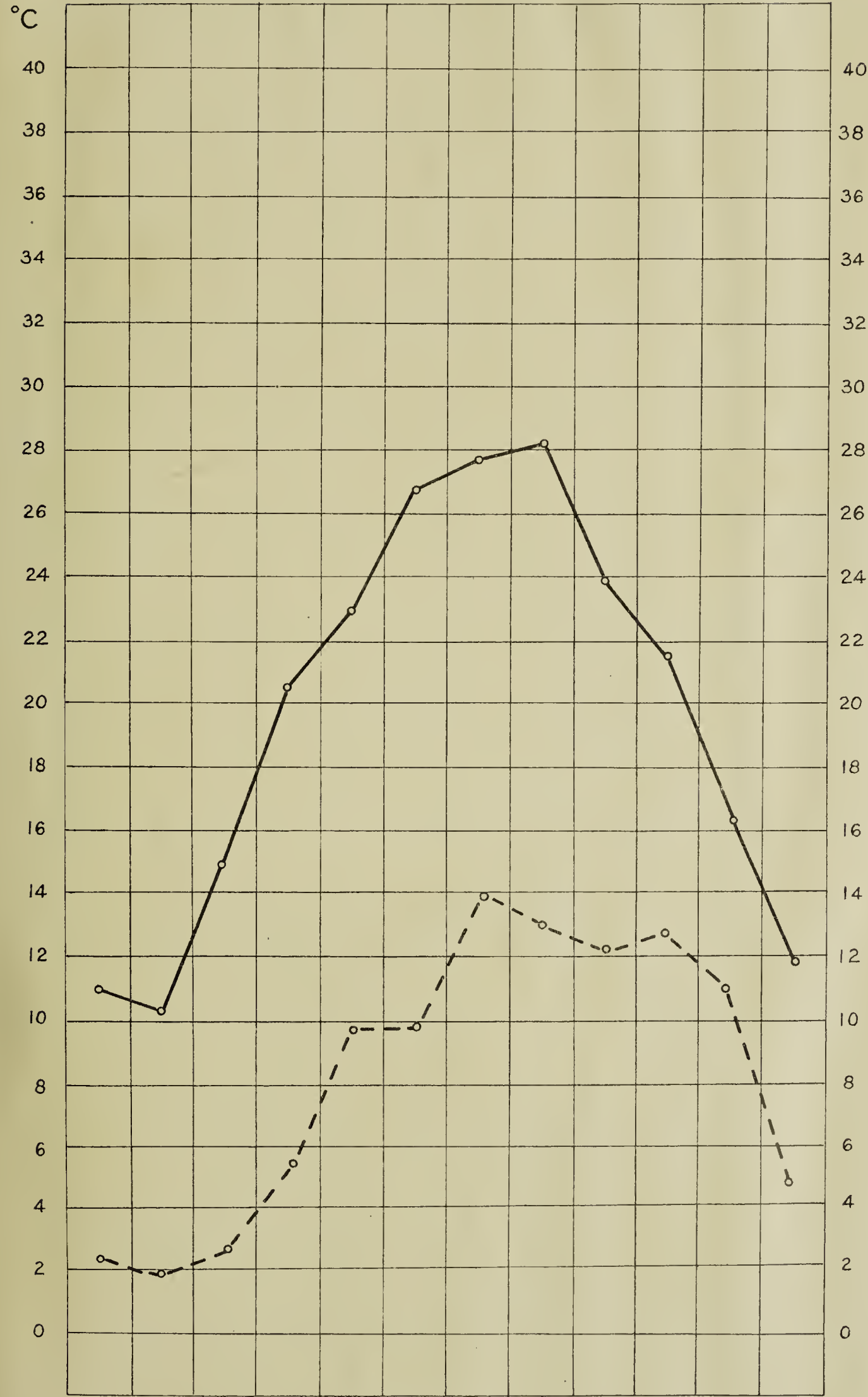




TABLE XII.

TEMPERATURE AND POSITIVE EXAMINATIONS

Temp. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.



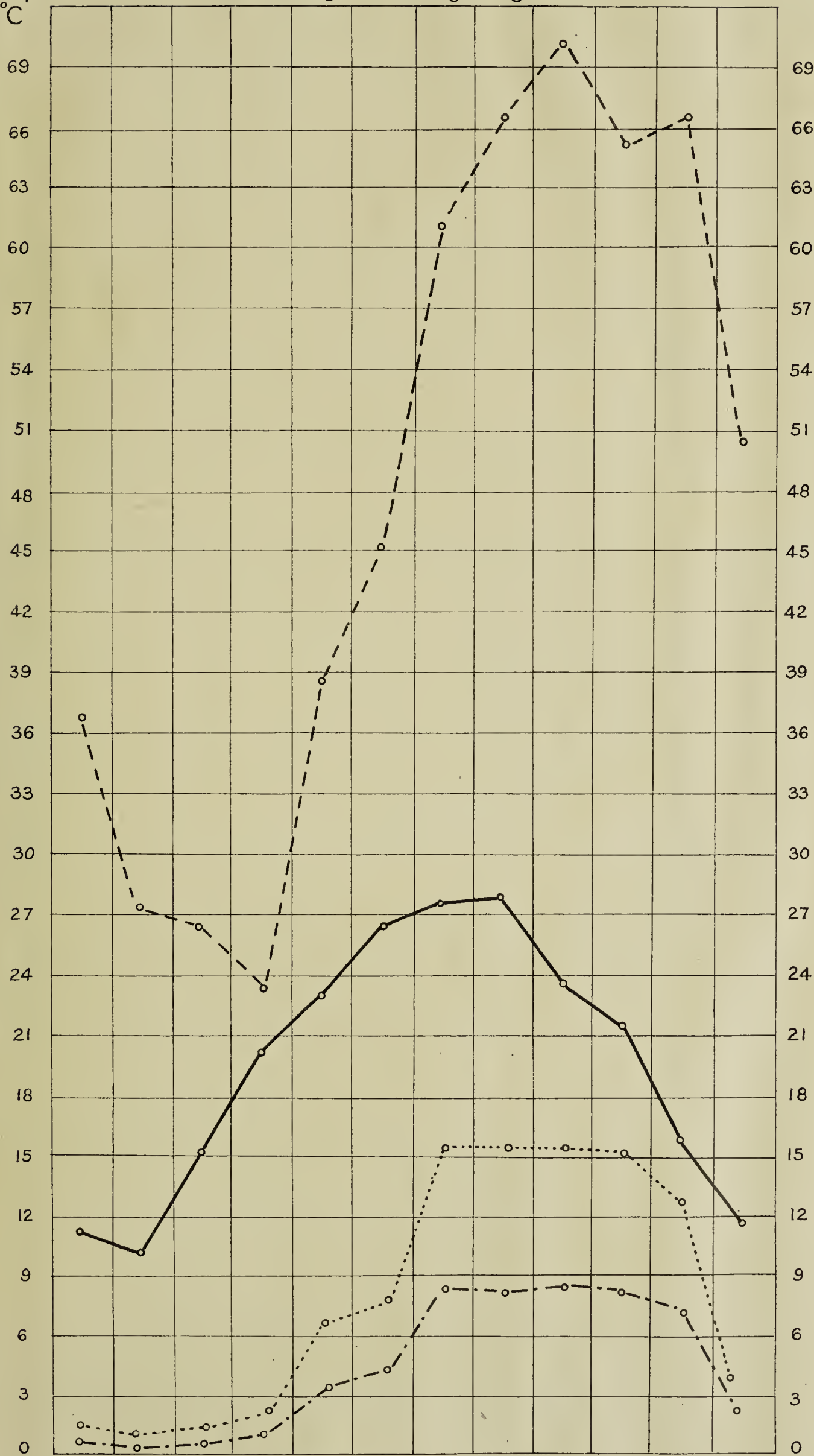
———— Average temperature in degrees centigrade.  
----- Percentage monthly of Positive examinations on  
total of all micro-organisms found during the year.





TEMPERATURE AND GONOCOCCUS

Temp. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. PerCent.  
°C



— Temperature in degrees centigrade.  
- - - Percentage of gonococcal findings on monthly total of all micro-organisms found.  
- . - . Monthly percentage of gonococcal findings on total of all micro-organisms found during the year.  
..... Monthly percentage of gonococcal findings on total of gonococcal findings during the year.  
S.O.F.E. 21/659.





TABLE XIV.

TEMPERATURE AND KOCH-WEEKS

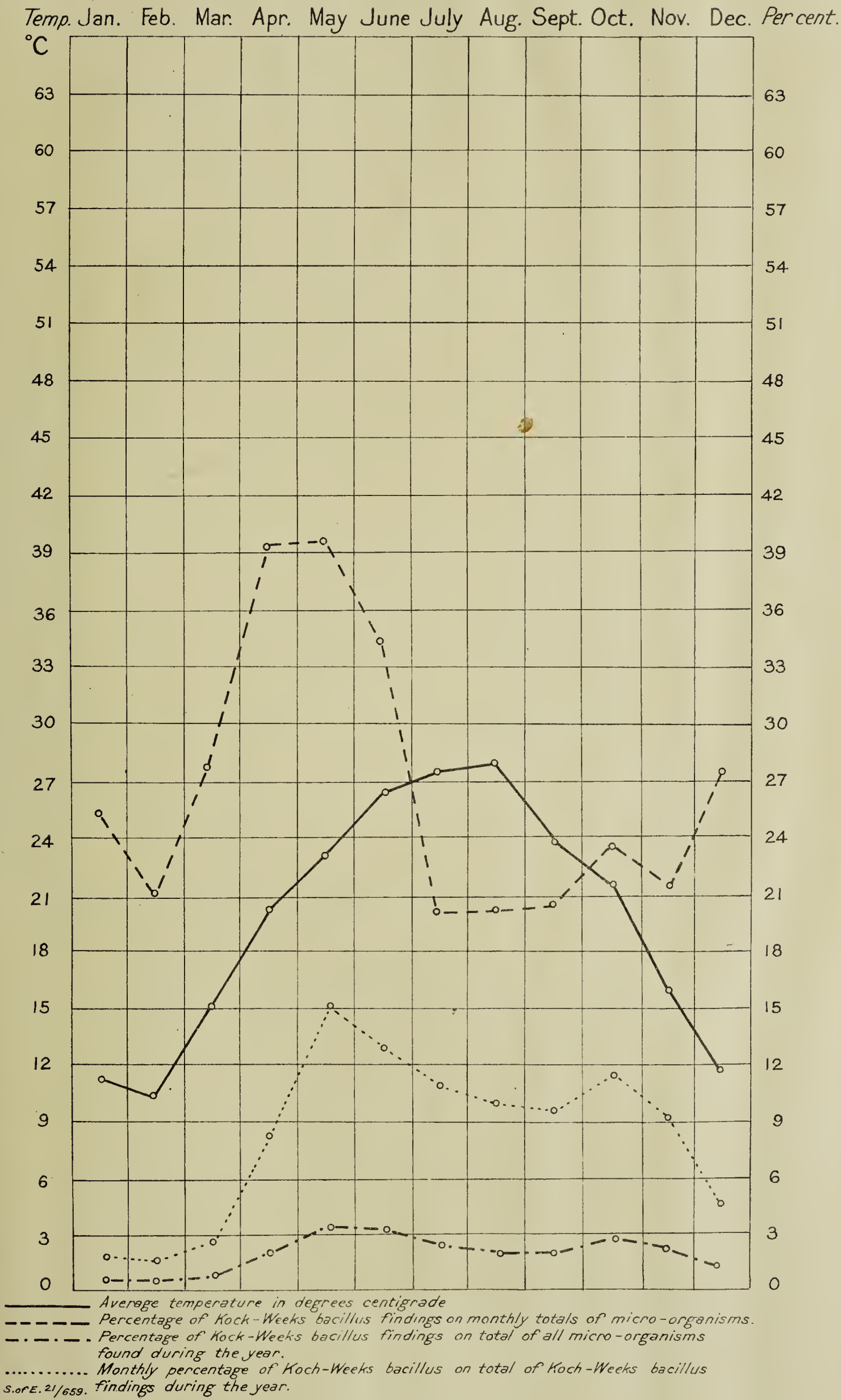






TABLE XV.

TEMPERATURE AND MORAX-AXENFELD.

Temp. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Percent.  
°C



———— Average temperature in degrees centigrade.  
----- Percentage of Morax-Axenfeld bacillus on monthly totals of micro-organisms found.  
- . - . - . Percentage of Morax-Axenfeld bacillus on total of all micro-organisms found during the year.  
..... Monthly percentage of Morax-Axenfeld bacillus on total of Morax-Axenfeld bacillus findings during the year.  
S.O.F.E. 21/659.





TABLE XVI.—BLINDNESS AMONG OUT-PATIENTS SINCE 1906.

YEAR.	TOTAL NUMBER OF PATIENTS EXAMINED.	ONE EYE.		BOTH EYES.		ONE EYE AND BOTH EYES.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1906 ... ..	40,103	1,297	3·2	663	1·6	1,960	4·9
1907 ... ..	24,416	1,450	5·9	697	2·8	2,147	8·7
1908 ... ..	19,614	1,189	6·0	852	4·3	2,041	10·4
1909 ... ..	22,373	2,116	9·4	1,385	6·1	3,501	15·6
1910 ... ..	25,506	2,438	9·5	2,010	7·8	4,448	17·4
1911 ... ..	31,274	3,196	10·2	2,811	8·9	6,007	19·2
1912 ... ..	43,668	4,115	9·4	2,824	6·4	6,939	15·8
1913 ... ..	62,233	5,360	8·6	3,878	6·2	9,238	14·8
1914 ... ..	75,398	6,425	8·5	3,591	4·7	10,016	13·2
1915 ... ..	71,930	5,637	7·8	2,992	4·2	8,629	12·0
1916 ... ..	94,447	7,042	7·4	3,504	3·7	10,546	11·2
1917 ... ..	100,410	9,385	9·3	4,611	4·6	13,996	13·9
1918 ... ..	90,668	8,969	9·0	4,261	4·7	13,230	14·6
1919 ... ..	83,577	8,537	10·2	4,278	5·1	12,815	15·3
1920 ... ..	108,113	9,833	9·1	5,154	4·7	14,987	13·8
TOTAL... ..	893,730	76,989	8·6	43,511	4·9	120,500	13·5

TABLE XVII.—TOTAL PERCENTAGE OF BLINDNESS IN ONE OR BOTH EYES.

	1915	1916	1917	1918	1919	1920
PERMANENT HOSPITALS :—						
Tanta ... ..	8·1	5·3	9·2	8·8	12·05	7·82
Asyût ... ..	10·1	11·7	18·4	20·2	20·7	19·05
Mansûra ... ..	15·3	16·6	13·2	13·9	18·2	17·70
Beni Suef ... ..	16·3	13·2	16·0	16·9	18·9	16·40
Zagazig ... ..	11·1	9·3	15·0	15·9	19·6 *	17·76
Damanhûr ... ..	11·4	11·8	13·5	12·9	10·8	9·2
Shibîn el Kôm ... ..	11·9	11·8	10·2	12·3	8·2	6·3
Sohâg ... ..	15·3	14·3	14·03	14·7	13·9	16·3
Minya ... ..	22·06	20·7	30·7	20·6	20·6	19·8
Faiyûm ... ..	—	11·06	13·0	18·2	17·7	12·36
Benha ... ..	—	—	—	—	—	9·5
Alexandria ... ..	—	—	—	—	—	10·7
Mahalla el-Kubra ... ..	16·4	17·03	12·2	12·3	12·5	10·4
Kafr el Zaiyât ... ..	10·5	8·3	12·6	10·1	11·4	10·93
Santa ... ..	—	10·06	13·7	14·2	15·6	13·84
TRAVELLING HOSPITALS :—						
No. 1 Travelling :—						
Shibîn el Qanâtir ... ..	11·8	—	—	—	—	—
Kafr el Dauwâr ... ..	—	12·7	11·9	—	—	—
Qena... ..	—	—	20·5	18·3	—	—
Benha ... ..	—	—	10·7	—	—	—
Alexandria ... ..	—	—	—	15·0	—	—
Aswân ... ..	—	—	—	12·8	22·7	—
Edfû ... ..	—	—	—	—	—	24·16
Damietta ... ..	—	—	—	—	—	14·3
Rôd el Farag ... ..	—	—	—	—	—	16·86
No. 2 Stationary :—						
Barrage ... ..	5·8	—	—	—	—	—
Giza ... ..	—	10·5	12·6	11·1	8·4	14·73
Rosetta ... ..	—	—	15·7	—	—	—
Fuwa ... ..	—	—	12·6	—	—	—
Embaba ... ..	—	—	—	—	—	—
No. 3 Travelling :—						
Barrage ... ..	—	—	—	15·6	16·5	15·25
Port Said... ..	—	—	—	—	—	11·12
Naga Hamâdi ... ..	—	—	—	—	—	9·42
Asyût Travelling :—						
Manfalût ... ..	6·7	—	8·9	14·7	—	—
Dairût ... ..	—	—	6·4	12·3	—	14·22
Mallâwi ... ..	—	6·1	8·2	—	—	20·0
Abnûb ... ..	—	4·1	—	—	—	15·27
Abu Tig ... ..	—	—	9·6	—	17·9	—
Badâri ... ..	—	—	—	—	10·5	—
Daqahliya Travelling :—						
Mit Ghamr ... ..	4·7	7·9	—	8·2	15·3	18·50
Matarîya ... ..	—	—	—	—	15·2	—
Dikrnis ... ..	—	—	10·6	—	—	—
Fâriskûr ... ..	—	7·1	—	7·2	13·9	—
Aga ... ..	—	—	22·3	14·2	—	16·56
Simbillâwein ... ..	—	—	10·7	—	—	15·58

\* Increased owing to E.L.C. patients.

TABLE XVIII.—BLINDNESS IN EGYPT ACCORDING TO CENSUS 1907 AND 1917.

	Total Number of Population.	BLIND.			AVERAGE PER 100,000.			PERCENTAGE.		
		One Eye.	Both Eyes.	Total.	One Eye.	Both Eyes.	Total.	One Eye.	Both Eyes.	Total.
1907	11,189,978	363,702	148,280	511,982	3,250	1,325	4,575	3,250	1,325	4,575
1917	12,718,255	398,757	155,511	554,268	3,135	1,223	4,358	3,135	1,223	4,358

TABLE XIX.—INCIDENCE OF BLINDNESS AMONG OUT-PATIENTS ACCORDING TO THE AGE OF EACH PATIENT SEEKING TREATMENT.

HOSPITAL.	Under 1 year.	From 1-5.	From 6-10.	From 11-15.	From 16-20.	From 21-40.	Over 40 Years.	Total.
No. 1 Travelling ... ..	8	39	101	117	152	382	679	1,478
No. 2 Stationary ... ..	5	42	38	56	53	377	484	1,055
No. 3 Travelling ... ..	29	31	55	94	53	284	450	996
Tanta ... ..	26	48	52	39	45	189	254	653
Asyût ... ..	21	41	32	45	52	716	541	1,448
Mansûra ... ..	17	59	77	79	64	367	264	927
Beni Suef ... ..	19	39	14	56	43	314	397	882
Zagazîg ... ..	20	23	32	69	42	248	320	754
Damanhûr ... ..	1	26	22	31	28	154	130	392
Shibîn el Kôm ... ..	10	20	15	24	24	165	99	357
Sohâg ... ..	12	40	23	37	35	295	404	846
Minya: ... ..	45	73	21	91	67	413	437	1,147
Faiyûm ... ..	24	35	20	26	33	260	343	741
Benha ... ..	7	21	19	11	17	102	187	364
Alexandria ... ..	9	33	26	21	43	133	91	356
Mahalla el Kubra ... ..	6	16	17	25	11	140	150	365
Kafr el Zaiyât ... ..	3	16	29	30	17	170	83	348
Santa ... ..	3	25	20	31	15	161	206	461
Asyût Travelling ... ..	7	29	40	44	37	258	399	814
Daqahlîya Travelling ... ..	10	30	57	41	42	189	234	603
TOTAL ... ..	282	686	710	967	873	5,317	6,152	14,987



TABLE XX.—PERCENTAGE OF BLINDNESS IN ONE OR BOTH EYES PER AGE  
AT WHICH PATIENT SOUGHT TREATMENT.

	Per Cent of Total examined.	Per Cent of Total Blind.	Per Cent of Patients of this Age.
Under one year ... ..	0·26	7·87	6·47
From 1 to 5 years ... ..	0·63	4·57	6·08
„ 6 „ 10 „ ... ..	0·66	4·73	6·73
„ 11 „ 15 „ ... ..	0·89	6·45	9·55
„ 16 „ 20 „ ... ..	0·81	5·87	12·30
„ 21 „ 40 „ ... ..	4·92	35·45	17·30
Over 40 years ... ..	5·69	41·05	32·65

TABLE XXI (a).—CAUSES OF BLINDNESS.

Congenital ... ..	16
Acquired :—	
Conjunctivitis resulting in :—	
(a) Total corneal opacity... ..	5,222
(b) Shrunken globe ... ..	4,115
(c) Secondary glaucoma ... ..	2,771
(d) Other conditions ... ..	1,059
Fundus :—	
Optic atrophy :—	
(1) PRIMARY :—	
(a) Spinal diseases :—	
Tabes ... ..	4
Disseminated sclerosis ... ..	1
(b) Arterio-Sclerosis ... ..	7
(2) RETRO-BULBAR NEURITIS :—	
(a) Local : Spread of inflammation from neighbouring sinuses ... ..	1
Hæmorrhage into nerve sheath... ..	1
General : Infectious diseases ... ..	28
(b) Chronic : In these cases there are no signs of neuritis preceding the atrophy, which is similar in appearance, to primary atrophy ... ..	2
(3) POST-NEURITIC.—Degeneration after various forms of optic neuritis ... ..	107
(4) RETINITIS.—After disease of retina and choroid (including quinine poisoning)... ..	18
(5) COMPRESSION OR INJURY OF NERVE ... ..	1
(6) EMBOLISM OF CENTRAL ARTERY ... ..	3
(7) UNKNOWN ... ..	32
Retinitis pigmentosa ... ..	21
Detachment of retina ... ..	43
Various ... ..	238
Glaucoma Primary :—	
Absolute Monocular (unable to count fingers at 1 metre ... ..	744
Absolute Binocular ... ..	821
Cataract ... ..	1,381
Injury ... ..	137
Operation ... ..	42
Infectious disease ... ..	23
Iritis endogenous ... ..	309
Various ... ..	234
TOTAL ... ..	17,381

TABLE XXI (b).—CAUSES OF BLINDNESS

	1915	1916	1917	1918	1919	1920	TOTAL.	Per Cent.
Congenital... ..	7	3	4	8	18	16	56	0·06
Acquired:—								
Conjunctivitis resulting in:—								
(a) Total corneal opacity	2,759	2,861	3,665	3,569	4,647	5,222	22,723	26·33
(b) Shrunken globe...	2,317	3,109	3,923	3,713	3,994	4,115	21,171	24·53
(c) Secondary glaucoma...	1,815	2,032	2,498	2,480	2,351	2,771	13,947	16·16
(d) Other conditions	745	859	1,577	1,483	1,021	1,059	6,744	7·81
Fundus:—								
Optic atrophy	90	145	178	195	136	205	949	1·10
Retinitis pigmentosa	12	23	22	24	28	21	130	0·15
Detachment of retina	—	—	—	—	—	43	43	0·04
Various	182	152	254	194	189	238	1,209	1·40
Glaucoma Primary:—								
Absolute monocular	657	696	893	751	541	744	4,282	4·96
„ binocular	650	673	903	720	459	821	4,226	4·89
Cataract	797	1,053	1,201	1,287	1,211	1,381	6,930	8·03
Injury...	70	56	148	92	108	137	611	0·71
Operation	17	32	52	34	26	42	203	0·24
Infectious diseases	19	2	32	11	28	23	115	0·13
Iritis endogenous	94	160	277	209	194	309	1,243	1·44
Various	230	241	422	331	247	234	1,705	1·98
TOTAL...	10,461	12,097	16,049	15,101	15,198	17,381	86,287	99·96





TABLE XXIV.—WORK DONE AT ALL OPHTHALMIC HOSPITALS DURING 1920.

I.—IN-PATIENTS :—														
Total number	...	...	...	...	...	...	...	...	...	...	...	...	...	4,232
Number of available beds	...	...	...	...	...	...	...	...	...	...	...	...	...	300
Number of diets issued	...	...	...	...	...	...	...	...	...	...	...	...	...	78,782
II.—OPERATIONS :—														
(1) Major :—														
(a) Senile cataract	...	...	...	...	...	...	...	...	...	...	...	...	...	384
(b) Soft cataract	...	...	...	...	...	...	...	...	...	...	...	...	...	147
(c) Trichiasis or entropion	...	...	...	...	...	...	...	...	...	...	...	...	...	27,081
(d) Other operations	...	...	...	...	...	...	...	...	...	...	...	...	...	5,997
TOTAL												...	...	33,609
(2) Minor	...	...	...	...	...	...	...	...	...	...	...	...	...	22,894
GRAND TOTAL												...	...	56,503
III.—OUT-PATIENTS :—														
(1) Incurable *	...	...	...	...	...	...	...	...	...	...	...	...	...	3,884
(2) Postponed	...	...	...	...	...	...	...	...	...	...	...	...	...	9,308
(3) Tickets issued, <i>i.e.</i> new cases	...	...	...	...	...	...	...	...	...	...	...	...	...	94,921
(4) Old cases...	...	...	...	...	...	...	...	...	...	...	...	...	...	956,396
(5) Visits made by patients to hospital for treatment (equal 1+2+3+4)	...	...	...	...	...	...	...	...	...	...	...	...	...	1,064,509
(6) Average number of visits made to hospital by each patient under regular treatment (old cases + tickets issued) ÷ tickets issued. The factor of incurable cases is neglected	...	...	...	...	...	...	...	...	...	...	...	...	...	11·07
(7) Discharges :—														
(a) Cured	...	...	...	...	...	...	...	...	...	...	...	...	...	9,301
(b) Relieved	...	...	...	...	...	...	...	...	...	...	...	...	...	2,726
(c) Incurable †	...	...	...	...	...	...	...	...	...	...	...	...	...	2,516
(d) Spontaneously ceased to attend after having attended only once	...	...	...	...	...	...	...	...	...	...	...	...	...	17,551
(e) Spontaneously ceased to attend after having attended more than once	...	...	...	...	...	...	...	...	...	...	...	...	...	51,536
(8) Trichiasis cases seen among new patients :—														
(a) No previous operation having been performed...	...	...	...	...	...	...	...	...	...	...	...	...	...	17,496
(b) Previous operation performed :—														
(i) Successfully	...	...	...	...	...	...	...	...	...	...	...	...	...	3,211
(ii) Unsuccessfully (not at an ophthalmic hospital, but probably by some charlatan)	...	...	...	...	...	...	...	...	...	...	...	...	...	2,447
(9) Spectacles ordered	...	...	...	...	...	...	...	...	...	...	...	...	...	437
(10) General anæsthetics	...	...	...	...	...	...	...	...	...	...	...	...	...	3,977
(11) Constant wash cases (number of days treatment)	...	...	...	...	...	...	...	...	...	...	...	...	...	146,674
(12) Ages of patients examined :—												Per Cent		
(a) Under 1 year	...	...	...	...	...	...	...	...	...	...	...	6·64	6,306	
(b) From 1 to 5 years	...	...	...	...	...	...	...	...	...	...	...	11·88	11,277	
(c) „ 6 „ 10 „	...	...	...	...	...	...	...	...	...	...	...	11·10	10,544	
(d) „ 11 „ 15 „	...	...	...	...	...	...	...	...	...	...	...	10·66	10,126	
(e) „ 16 „ 20 „	...	...	...	...	...	...	...	...	...	...	...	7·47	7,096	
(f) „ 21 „ 40 „	...	...	...	...	...	...	...	...	...	...	...	32·37	30,732	
(g) Over 40 years...	...	...	...	...	...	...	...	...	...	...	...	19·84	18,840	
(13) Origin of patients :—														
Patients from														
(a) Town in which hospital is situated	...	...	...	...	...	...	...	...	...	...	...	...	...	37,830
(b) Markaz in which hospital is situated...	...	...	...	...	...	...	...	...	...	...	...	...	...	34,511
(c) Other Markazes	...	...	...	...	...	...	...	...	...	...	...	...	...	22,580

\* Incurable cases do not receive tickets, but are recognized as soon as seen by the surgeon as both incurable and devoid of surgical interest.  
† Incurable cases include those who are recognized as soon as seen by the surgeon as incurable but are given tickets for statistical or other purposes.



TABLE XXV.—LIST OF DISEASES.

AMETROPIA :—																	
Hypermetropia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	527
Myopia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	618
Astigmatism	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	410
Presbyopia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70
CONJUNCTIVA :—																	
Conjunctivitis, gonococcal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7,077
„ Morax-Axenfeld	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,569
„ Koch-Weeks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,300
„ pneumococcal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	316
Other organisms or negative	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,833
Trachoma I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,318
„ II (a)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,128
„ II (b')	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,395
„ II (b'')	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	93
„ II (c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	259
„ III, including post-trachomatous degeneration	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	60,510
„ IV	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,372
Phlyctenule	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,439
Pterygium	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,659
Pinguecula	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	170
Xerosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	229
Symblepharon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	97
Dermoid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
Other conditions :—																	
Argyrosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	74
Colloid degeneration	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
Hypertrophied caruncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65
Injuries (foreign bodies, burn, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	52
Cyst	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
EYELIDS :—																	
Pediculus ciliaris	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	245
Trichiasis and entropion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22,980
Distichiasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	83
Ectropion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	305
Lagophthalmos	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,062
Blepharitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,177
Hordeolum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	503
Wart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	126
Chalazion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	490
Eczema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	204
Rodent ulcer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
Dermoid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
Ptosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	134
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Herpes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Chancre	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Epithelioma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Other tumours	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
Leucoderma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
LACRIMAL APPARATUS :—																	
Lacrimal fistula	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	66
Stenosis of the duct	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	84
Dacryocystitis, acute	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45
„ chronic	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	630





TABLE XXV.—LIST OF DISEASES (*continued*).

LENS :—																	
Cataract, senile	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,709
„ soft	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	174
„ traumatic	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58
„ lamellar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
„ anterior polar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	545
„ posterior „	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
„ dislocated, traumatic...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70
„ „ operative	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19
„ „ congenital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34
Aphakia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	245
Secondary cataract	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	247
Exctopia lentis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
VITREOUS :—																	
Opacities	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	111
Foreign bodies	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
MUSCLES :—																	
Strabismus, alternating	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	206
„ convergent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,777
„ divergent...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,871
Heterophoria...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
Nystagmus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	484
Paralysis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
GLAUCOMA :—																	
Primary, acute	} Including absolute glaucoma caused by acute, sub-acute, or chronic glaucome. }															328	
„ sub-acute																158	
„ chronic																1,739	
Secondary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,019
GLOBE :—																	
Shrunken globe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,115
Buphthalmos...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
Exophthalmic goitre	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Panophthalmitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	183
Microphthalmos	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
Anophthalmos	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13
Injury	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24
ORBIT :—																	
Tumours...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22
Cellulitis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Tenonitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	—	
Periostitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Injuries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Cyst, frontal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
„ ethmoidal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	—	
Contracted socket...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
Fly blown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12
BLIND :—																	
In one eye	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9,833
In both eyes *	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5,154

\* Patients are accounted blind who cannot count fingers at one metre.





TABLE XXVII.—ACTUAL EXPENDITURE, CENTRAL ADMINISTRATION, 1919-1920.

CHAPTER.														Grant.	Expenditure.
														L.E.	L.E.
Pensionable staff	...	...	...	...	...	...	...	...	...	...	...	...	...	5,286	3,280 *
Hors cadre staff	...	...	...	...	...	...	...	...	...	...	...	...	...	290	262
Allowances :—															
Ophthalmic allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	216	9 } †
Compensation allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	144	48 }
Transport, transfer, and travelling allowances :—															
Inspection allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	384	192 ‡
Consolidated allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	58	29
Transfer allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	40	1
Travelling allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	200	105
Transport	...	...	...	...	...	...	...	...	...	...	...	...	...	600	255
Books and periodicals	...	...	...	...	...	...	...	...	...	...	...	...	...	30	30
Telephone	...	...	...	...	...	...	...	...	...	...	...	...	...	7	7
Telegrams	...	...	...	...	...	...	...	...	...	...	...	...	...	30	11
Petty	...	...	...	...	...	...	...	...	...	...	...	...	...	15	—
TOTAL...														7,300	4,229 §

\* L.E. 660, salary of an inspector, is excluded though it was debited against our budget as he did not perform ophthalmic work.  
L.E. 14 salary of clerks for period of their strike is excluded.  
† L.E. 96 compensation allowance of an inspector is excluded though it was debited against our budget as he did not perform ophthalmic work.  
‡ L.E. 48 inspection allowance of an inspector until June 1919 is excluded though it was debited against our budget as he did not perform ophthalmic work.  
§ This figure is very low this year owing to shortage of inspectors.

TABLE XXVIII.—ACTUAL EXPENDITURE, GOVERNMENT OPHTHALMIC HOSPITALS, 1919-1920.

CHAPTER.														Grant.	Expenditure.
														L.E.	L.E.
Pensionable staff	...	...	...	...	...	...	...	...	...	...	...	...	...	6,396	5,830 *
Hors cadre staff	...	...	...	...	...	...	...	...	...	...	...	...	...	4,856	5,068
Ophthalmic allowance	...	...	...	...	...	...	...	...	...	...	...	...	...	1,440	1,054 *
Transport and travelling allowances	...	...	...	...	...	...	...	...	...	...	...	...	...	1,378	1,191
Food	...	...	...	...	...	...	...	...	...	...	...	...	...	4,943	5,587
Forage	...	...	...	...	...	...	...	...	...	...	...	...	...	47	26
Water	...	...	...	...	...	...	...	...	...	...	...	...	...	170	155
Light	...	...	...	...	...	...	...	...	...	...	...	...	...	150	111
Sewage	...	...	...	...	...	...	...	...	...	...	...	...	...	150	101
Heating	...	...	...	...	...	...	...	...	...	...	...	...	...	—	940
Rent	...	...	...	...	...	...	...	...	...	...	...	...	...	150	100
Telegrams and telephones	...	...	...	...	...	...	...	...	...	...	...	...	...	95	83
Petty	...	...	...	...	...	...	...	...	...	...	...	...	...	620	298
General Furniture :—															
Equipment	...	...	...	...	...	...	...	...	...	...	...	...	...	6,250 †	2,792
Surgical equipment	...	...	...	...	...	...	...	...	...	...	...	...	...		120
Instrument	...	...	...	...	...	...	...	...	...	...	...	...	...		274
Drugs	...	...	...	...	...	...	...	...	...	...	...	...	...		1,280
Dressings	...	...	...	...	...	...	...	...	...	...	...	...	...		317
Books and periodicals	...	...	...	...	...	...	...	...	...	...	...	...	...	12	12
TOTAL...														26,657	25,339 ‡

\* Excluding L.E. 240, being amount inserted for salary and ophthalmic allowance of medical officer for Daqahliya Provincial Council Travelling Ophthalmic Hospital.  
† According to Central Stores letter dated August 6, 1918, No. 1276/29/20/5/12, maintenance of each permanent ophthalmic hospital is L.E. 450 per annum and L.E. 400 for each travelling ophthalmic hospital.  
‡ Excluding repairs being omitted as the credit is at the disposal of the Public Works Ministry and no return is made.

TABLE XXIX.—ACTUAL EXPENDITURE, GOVERNMENT OPHTHALMIC HOSPITALS (PER UNIT), 1919-1920.

CHAPTER.	No. 1, T.O.H.	No. 2, S.O.H.	No. 3, T.O.H.	Tanta.	Asyût.	Mansûra.	Beni Suef.	Zagazig.	Damanhûr.	Shibîn el Kôm.	Sohâg.	Minya.	Faiyûm.	Benha.	Tanta School	Total.
	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.
Pensionable staff* ... ..	346	375	369	619	455	484	475	431	453	414	386	504	459	—	60	5,830
Hors cadre staff* ... ..	316	501	340	424	438	384	391	364	401	387	363	364	390	5	—	5,068
Ophthalmic allowance ... ..	134	125	112	102	87	77	60	51	33	70	53	48	78	—	24	1,054
Transport and travelling al- lowance ... ..	206	45	139	113	132	64	95	39	77	50	75	43	78	5	30	1,191
Food ... ..	363	450	331	494	587	599	454	407	365	389	352	440	356	—	—	5,587
Forage ... ..	—	18	—	—	8	—	—	—	—	—	—	—	—	—	—	26
Water ... ..	2	2	—	50	34	7	20	14	28	—	—	—	—	—	—	155
Light ... ..	3	—	—	13	30	33	32	—	—	—	—	—	—	—	—	111
Sewage ... ..	18	50	—	10	—	2	—	2	—	—	—	—	19	—	—	101
Heating ... ..	21	—	17	176	67	71	82	82	67	15	87	125	130	—	—	940
Rent ... ..	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	100
Telegrams and telephones ...	1	2	1	8	10	9	10	8	6	11	3	7	7	—	—	83
General Furniture:—																
Equipment ... ..	251	315	220	225	174	215	139	158	254	225	168	218	230	—	—	2,792
Surgical equipment ... ..	—	23	5	22	—	—	—	10	10	—	—	19	31	—	—	120
Instruments ... ..	7	18	80	12	21	10	34	7	19	32	19	10	5	—	—	274
Drugs ... ..	65	112	133	163	91	60	60	94	43	96	154	101	108	—	—	1,280
Dressings ... ..	19	7	48	48	31	22	12	17	17	2	12	48	34	—	—	317
Books and periodicals ... ..	1	1	1	1	1	1	1	1	1	1	1	1	—	—	—	12
Petty ... ..	49	26	13	18	34	28	24	22	17	11	15	22	19	—	—	298
TOTAL ... ..	1,802	2,170	1,809	2,498	2,200	2,066	1,889	1,707	1,789	1,703	1,688	1,950	1,944	10	114	†25,339

\* Including 20 per cent permanent increase ; but excluding war bonuses which were charged against a special credit of M. of Finance.

† Excluding upkeep of buildings, of which no account is kept by P.H.D. but by P.W.M.



TABLE XXX.—ACTUAL EXPENDITURE, PROVINCIAL COUNCIL ORTHALMIC HOSPITALS, 1919-1920.

CHAPTER.	GHARBĪYA.					ASYŪT.		DAQAHLĪYA.		
	Grant.	Expenditure.	Expenditure Per Unit.			Grant.	Expenditure.	Grant.	Expenditure.	
			Mahalla el Kûbra.	Kafr el Zaîyât.	Santa.					
										L.E.
Employees ... ..	756	681	234	240	207	L.E.	166	300	320	
Servants ... ..	546	494	131	139	224	L.E.	52	240	221	
Transport and travelling allowance :—										
Travelling allowance ... ..	—	—	—	—	—	L.E.	3	—	—	
Railways... ..	18	18	4	7	7	L.E.	7	56	56	
Sundry ... ..	—	11	2	5	4	L.E.	22	—	29	
Food ... ..	130	121	—	—	121	L.E.	—	130	116	
Water ... ..	—	—	—	—	—	L.E.	4	—	—	
Light and Heating ... ..	40	24	6	9	9	L.E.	5	10	17	
Rent... ..	—	—	—	—	—	L.E.	—	15	—	
General furniture :—										
Equipment ... ..	300	306	96	94	116	L.E. 500 have been granted. No details.	133	130	384	
Instruments ... ..		61	18	21	22		19		35	
Drugs ... ..	210	262	90	92	80		38	90	105	
Dressings... ..		54	21	8	25		—		8	
Stationery and Periodicals ... ..	—	—	—	—	—	L.E.	—	8	—	
Post and Telegrams ... ..	9	2	2	—	—	L.E.	1	6	1	
Petty expenses ... ..	45	35	6	12	17	L.E.	12	15	16	
Total... ..	2,054	2,069	610	627	832	500	460	1,000	1,308	

TABLE XXXI.—COMPARISON OF THE COST OF MAINTENANCE OF A PERMANENT  
OPHTHALMIC HOSPITAL IN 1914 AND 1921.

	Number.	1914.	TOTAL.	Number	1921.	TOTAL.
		L.E.	L.E.		L.E.	L.E.
ART. 1.— <i>Salaries, Wages, and Allowances</i> :—						
A.—Pensionable Staff :—						
Medical Officers, 4th class ... ..	2	336		2	336	
Employee 4th class ... ..	1	60		1	72	
			396			408
C.—Hors Cadre Staff :—						
Moawin ... ..	1	48		1	48	
Chief attendant ... ..	1	36		2	72	
Attendants (male) ... ..	2	42		5	105	
Attendants (female) ... ..	2	36		2	36	
Murasla ... ..	1	18		1	21	
Cook ... ..	1	24		1	36	
Boab ... ..	1	18		—	—	
Sundry subordinate staff ... ..	3	54		—	—	
Gardener ... ..	—	—		1	21	
	12		276	13		339
20 per cent rise of pay to personnel ... ..		—	—		—	150
60 per cent war gratuity ... ..		—	—		—	538
E.—Allowances ... ..		—	72		—	72
ART. 2.— <i>Transport, Transfer, and Travelling Allowances</i> :—						
Transport ... ..	}	50	50	}	5	105
Transfer ... ..					50	
Travelling allowance ... ..					50	
ART. 3.— <i>Food</i> ... ..		—	139		—	450
ART. 4.— <i>Forage</i> ... ..		—	—		—	—
ART. 5.— <i>Rent, Water, Lighting, etc.</i> :—						
Rent ... ..		—			—	
Water ... ..		30			40	
Lighting... ..		40			50	
Heating .. ..		20			30	
Sewage ... ..		12			—	
			102			120
ART. 6.— <i>Books and Periodicals</i> ... ..		—	1		—	1
ART. 7.— <i>Telegrams and Telephones</i> :—						
Telegrams ... ..	}	9	9	}	2	12
Telephones ... ..					10	
ART. 8.— <i>Petty Expenses</i> ... ..		—	12		—	30
Equipment ... ..		—	300		—	450
TOTAL... ..			1,357			2,675



TABLE XXXII.—COST OF UNIFORM DIETS FOR ALL IN-PATIENTS AT OPHTHALMIC HOSPITALS DURING 1920, EXCLUDING COST OF RATIONS OF EMPLOYEES.

HOSPITALS.	Number of Diets issued.	Total Cost. *	Cost per Day per Head.
		L.E.	Mills.
No. 1 Camp, Idfu, Damietta, and Rôd el Farag ... ..	3,122	229	73·5
Mansûra ... ..	6,720	451	67·1
Minya ... ..	4,729	297	62·8
Damanhûr ... ..	3,964	246	62·1
Faiyûm ... ..	3,587	221	61·5
No. 3 Camp, Barrage, Port Said, and Nag <sup>c</sup> Hamâdi ... ..	3,665	224	60·3
Daqahlîya Travelling, Mît Ghamr and Simbellawein † ...	2,003	116	57·9
Zagazig ... ..	5,118	290	56·6
Tanta ... ..	6,517	366	56·1
Asyût ... ..	7,871	440	55·9
Sohâg ... ..	4,280	238	55·6
Beni Suef ... ..	6,057	336	55·5
Shibîn el Kôm ... ..	4,903	266	54·2
No. 2 Camp, Gîza † ... ..	5,630	283	50·2
Santa Gharbîya P.C. † ... ..	2,634	121	45·9
TOTAL... ..	70,800	4,124	58·2

\* Fuel excluded.  
† Rations of these hospitals are not supplied by contractors but bought locally.  
Santa :—Not regulation Diet.

Scale of Full Diet as given to all In-patients at all Ophthalmic Hospitals except Santa.

	Grammes.
Bread ... ..	600
Beef ... ..	150
Vegetables ... ..	150
Lentils... ..	75
Rice ... ..	75
Milk ... ..	200
Artificial butter ... ..	25
Sugar ... ..	30
Salt ... ..	15

TABLE XXXIII.—NUMBER OF BEDS AT THE OPHTHALMIC HOSPITALS.

	1st.	3rd.
No. 1 Travelling ... ..	—	10
No. 2 Stationary ... ..	—	20
No. 3 Travelling ... ..	—	10
Tanta ... ..	—	20
Asyût ... ..	1	27
Mansûra ... ..	—	20
Beni Suef ... ..	—	16
Zagazig ... ..	—	16
Damanhûr ... ..	—	16
Shebîn el Kôm ... ..	—	16
Sohâg ... ..	—	16
Minya ... ..	—	16
Faiyûm ... ..	—	12
Benha ... ..	—	16
Alexandria ... ..	—	20
Daqahliya ... ..	—	8
Santa ... ..	—	10

# VIII.—STATISTICS OF OPHTHALMIC TREATMENT IN SCHOOLS.

Ophthalmic treatment at the Government Primary Schools of Tanta, Asyût, Mansûra, Beni Suef, Zagazig, Damanhûr, Shibîn el Kôm, Sohâg, Minya, Faiyûm, Gîza, Benha, and Alexandria, during 1920-1921.

TABLE I.—PUPILS INSPECTED.

SCHOOL.	BEGINNING OF THE YEAR.			END OF THE YEAR.		
	Pupils inspected.	Pupils with Trachoma.	Per Cent.	Pupils inspected.	Pupils with Trachoma.	Per Cent.
Tanta ... ..	543	492	90·6	554	505	91·1
Asyût ... ..	386	356	92·2	384	351	91·4
Mansûra ... ..	504	454	90·0	461	417	90·4
Beni Suef ... ..	341	328	96·2	321	310	96·5
Zagazig ... ..	403	347	86·1	383	333	86·9
Damanhûr ... ..	212	201	94·8	202	184	91·1
Shibîn el Kôm ... ..	166	150	90·3	140	131	93·6
Sohâg ... ..	226	217	96·0	217	209	96·3
Minya ... ..	299	282	94·3	285	270	94·7
Faiyûm ... ..	217	203	93·5	233	221	94·8
Gîza ... ..	209	193	92·3	186	176	94·6
Benha ... ..	362	343	94·7	352	335	95·2
Alexandria ... ..	356	224	62·9	347	201	57·9
TOTAL... ..	4,224	3,790	89·7	4,065	3,643	89·6



TABLE II (a).—CONDITION OF CONJUNCTIVITIS.

SCHOOLS.	BEGINNING OF THE YEAR.					END OF THE YEAR.								
	Healthy.	Conjunctivitis.	Trachoma.				Total.	Healthy.	Conjunctivitis.	Trachoma.				Total.
			I.	II.	III.	IV.				I.	II.	III.	IV.	
Tanta ... Per cent	51 9.4	— —	30 5.5	18 3.3	271 49.9	173 31.8	543	49 8.8	— —	14 2.5	10 1.8	303 54.7	178 32.1	554
Asyût... Per cent	29 7.5	1 0.3	67 17.3	55 14.2	111 28.7	123 31.9	386	33 8.6	— —	59 15.3	3 0.8	132 34.4	157 40.9	384
Mansûra ... Per cent	50 9.9	— —	54 10.7	18 3.5	140 27.8	242 48.0	504	44 9.5	— —	29 6.2	4 0.9	98 21.3	286 62.0	461
Beni Suef ... Per cent	13 3.8	— —	36 10.5	44 12.9	119 34.9	129 37.8	341	11 3.4	— —	10 3.1	12 3.7	145 45.2	143 44.5	321
Zagazig ... Per cent	56 13.9	— —	37 9.1	17 4.2	150 37.2	143 35.5	403	50 13.1	— —	7 1.8	7 1.8	126 32.9	193 50.4	383
Damanhûr ... Per cent	11 5.2	— —	48 22.6	17 8.0	87 41.0	49 23.1	212	18 8.9	— —	21 10.4	10 5.0	77 38.1	76 37.6	202
Shibîn el Kôn ... Per cent	2 1.2	14 8.4	4 2.4	17 10.2	80 48.2	49 29.5	166	1 0.7	8 5.7	1 0.7	— —	50 35.7	80 57.1	140
Sohâg... Per cent	9 4.0	— —	23 10.1	29 12.8	136 60.2	29 12.6	226	8 3.7	— —	20 9.2	12 5.5	128 59.0	49 22.6	217
Minya... Per cent	15 5.0	2 0.7	25 8.3	13 4.3	158 52.9	86 28.7	299	13 4.6	2 0.7	23 8.1	13 4.5	129 45.2	105 36.8	285
Gîza ... Per cent	16 7.6	— —	11 5.3	3 1.4	103 49.2	76 36.4	209	10 5.4	— —	6 3.2	— —	85 45.7	85 45.7	186
Benha... Per cent	19 5.2	— —	50 13.8	27 7.4	227 62.7	39 10.8	362	17 4.8	— —	23 6.5	6 1.7	243 69.0	63 17.9	352
TOTAL... Per cent	271 7.4	17 0.5	385 10.5	258 7.1	1,582 43.3	1,138 31.2	3,651	254 7.3	10 0.3	213 6.1	77 2.2	1,516 43.5	1,415 40.6	3,485

TABLE II (b).—EFFECT OF TREATMENT ON SERIOUS STAGES OF TRACHOMA.

YEAR.	Beginning of the Year.			End of the Year.	
	Pupils with any Stage of Trachoma.	Pupils with Serious Stage of Trachoma I and II.		Pupils with Serious Stage of Trachoma I and II.	
	Number.	Number.	Per Cent.	Number.	Per Cent.
1907-1908 ... ..	464	289	62·3	—	—
1914-1915 ... ..	1,553	342	22·0	61	4·0
1916-1917 ... ..	1,528	327	21·4	48	3·0
1917-1918 ... ..	1,699	282	16·6	71	4·2
1919-1920 ... ..	2,454	410	16·7	201	8·2
1920-1921 ... ..	3,363	643	19·1	290	8·6

TABLE II (c).—STAGES OF TRACHOMA AT BEGINNING AND END OF SCHOOL YEAR.

STAGES OF TRACHOMA.	Beginning of the Year.		End of the Year.	
	Number.	Per Cent.	Number.	Per Cent.
Trachoma I ...	385	11·4	213	6·6
„ II ...	258	7·7	77	2·4
„ III ...	1,582	47·0	1,516	47·0
„ IV ...	1,138	33·8	1,415	43·9



TABLE III (a).—TRACHOMA AND ITS RELATION TO SCHOOL YEARS (BEGINNING OF THE YEAR).

SCHOOLS.	FIRST YEAR.				SECOND YEAR.				THIRD YEAR.				FOURTH YEAR.					
	Healthy.	Conjunctivitis.	Trachoma.				Healthy.	Conjunctivitis.	Trachoma.				Healthy.	Conjunctivitis.	Trachoma.			
			I.	II.	III.	IV.			I.	II.	III.	IV.			I.	II.	III.	IV.
Tanta ... ..	9	—	8	7	107	35	14	—	9	4	89	42	14	—	4	5	27	50
Asyût ... ..	5	1	37	24	33	28	8	—	13	15	47	35	6	—	3	7	14	27
Mansûra ... ..	14	—	36	11	47	32	15	—	2	5	41	75	8	—	2	1	17	63
Beni Suef ... ..	4	—	20	26	33	24	4	—	6	13	49	37	3	—	2	1	16	33
Zagazig ... ..	20	—	23	11	57	17	11	—	4	1	32	41	12	—	2	3	32	33
Damanhûr ... ..	2	—	35	8	33	12	3	—	4	5	23	16	5	—	3	1	12	7
Shubân el Kôm ... ..	1	8	3	12	33	12	—	2	1	4	22	12	1	3	—	—	13	14
Sohâg ... ..	3	—	14	14	37	1	3	—	1	8	41	9	1	—	2	3	28	14
Minya ... ..	3	1	9	10	50	32	5	—	7	1	54	19	5	1	1	1	21	16
Gîza ... ..	6	—	6	2	37	21	6	—	1	1	30	23	3	—	—	—	13	14
Benha ... ..	1	—	38	12	40	11	8	—	—	6	68	6	4	—	—	5	60	13
Total ... ..	68	10	229	137	507	225	77	2	48	63	496	315	66	4	19	27	253	284

TABLE III (b).—COMPARISON OF SERIOUS STAGES OF TRACHOMA (Beginning of the Year).

CLASS.	Total Cases of Trachoma.		Serious Stages of Trachoma I and II.		Per Cent.	
	1919-1920.	1920-1921.	1919-1920.	1920-1921.	1919-1920.	1920-1921.
First Year... ..	710	1,098	222	366	31·2	33·3
Second „ ... ..	688	963	102	152	14·8	15·7
Third „ ... ..	560	719	48	79	8·5	10·9
Fourth „ ... ..	496	583	38	46	7·6	7·8

TABLE IV.—VISION OF ALL PUPILS WITHOUT SPECTACLES.

	Tanta.	Asyût.	Mansûra.	Beni Suef.	Zagazig.	Damanhûr.	Shibîn el Kôm.	Sohâg.	Minya.	Faiyûm.	Gîza.	Benha.	Alexandria.	Total.	Grand Total.	Per Cent.
1. Good Vision :—																
(a) Normal vision in each eye 6/6 and 6/6 ...	56	48	46	20	63	47	14	25	54	8	9	47	70	507	—	—
(b) Vision 6/6 and 6/9, or 6/9 and 6/9 ... ..	103	98	101	53	82	34	31	38	43	29	55	61	111	839	1,346	31·8
2. Fair Vision :—																
(a) Vision 6/6 and 6/12, or 6/9 and 6/12, or 6/12 and 6/12 ... ..	184	76	74	54	77	39	30	58	77	32	37	83	57	818	—	—
(b) Vision 6/6 and 6/18... ..	36	56	69	57	57	23	21	28	37	27	22	52	42	527	1,345	31·8
3. Bad Vision :—																
Fails to attain any of the above standards ...	224	108	214	157	124	69	70	77	88	121	86	119	76	1,533	1,533	36·3
TOTAL ... ..	543	386	504	341	403	212	166	226	299	217	209	362	356	4,224	4,224	—

TABLE V.—SPECTACLES ORDERED.

	Tanta.	Asyût.	Mansûra.	Beni Suef.	Zagazig.	Damanhûr.	Shibîn el Kôm.	Sohâg.	Minya.	Faiyûm.	Gîza.	Benha.	Alexandria.	Total.
Number of pupils now attending obtained spectacles in previous years ... ..	14	10	31	11	17	8	5	14	13	10	8	4	1	146
Number of pupils now attending obtained spectacles in this year ...	9	5	14	9	—	—	3	9	2	—	5	—	—	56
Total... ..	23	15	45	20	17	8	8	23	15	10	13	4	1	202
Spectacles on order or under repair...	10	—	18	9	8	6	12	9	2	9	—	14	17	114
Number of pupils wearing spectacles on date of general inspection... ..	11	10	18	10	12	7	8	11	13	9	10	4	1	124
Net number not wearing spectacles ...	2	5	9	1	5	1	—	3	—	—	3	—	—	29



TABLE VI.—VISION OF PUPILS ORDERED SPECTACLES.

	Total.	Grand Total.	Per Cent.
(a) BEFORE ORDERING.			
Good Vision :—			
(a) Normal vision in each eye 6/6 and 6/6... ..	1		
(b) Vision 6/6 and 6/9, or 6/9 and 6/9... ..	2		
		3	1·1
Fair Vision :—			
(a) Vision 6/6 and 6/12, or 6/9 and 6/12, or 6/12 and 6/12 ... ..	7		
(b) Vision 6/6 and 6/18... ..	4		
		11	4·1
Bad Vision :—			
Fails to attain any of the above standards... ..	253		94·7
		253	
Total... ..	267	267	
(b) AFTER ORDERING.			
Good Vision :—			
(a) Attains 6/6 and 6/6 with aid of spectacles not greater in strength than + or — 6 D. ... ..	12		
(b) Attains 6/6 and 6/9 or 6/9 and 6/9 with aid of spectacles not greater in strength than + or — 6 D. ... ..	39		
		51	19·1
Fair Vision :—			
(a) Attains 6/6 and 6/12 or 6/9 and 6/12 or 6/12 and 6/12 with aid of spectacles not greater in strength than + or — 6 D. ... ..	46		
(b) Attains 6/6 and 6/18 with aid of spectacles not greater in strength than + or — 6 D. ... ..	15		
		61	22·8
Bad Vision :—			
(a) Fails to attain any of the above standards with aid of spectacles not greater in strength than + or — 6 D. ... ..	129		
(b) Attains any of the above standards with aid of spectacles greater in strength than + or — 6 D. ... ..	26		
(c) Fails to attain any of the above standards with more than + or — 6 D. ... ..	—		
		155	58·0
Total... ..	267	267	

TABLE VII.—CONDITION OF CORNEA BEFORE TREATMENT.

SCHOOLS.	Both Corneae Clear.	One Cornea Clear the other showing Opacity.	Opacity of both Corneae.
Tanta ... ..	475	57	11
Asyût ... ..	362	17	7
Mansûra ... ..	434	38	42
Beni Suef ... ..	303	26	12
Zagazig ... ..	359	35	9
Damanhûr ... ..	181	23	8
Shibîn el Kôm ... ..	137	29	—
Sohâg ... ..	191	28	7
Minya ... ..	262	26	11
Faiyûm ... ..	175	19	23
Gîza ... ..	169	25	15
Benha ... ..	309	27	26
Alexandria ... ..	348	7	1
Total... ..	3,695	357	172
Per cent... ..	87·5	8·4	4

IX.—FAIYUM AND ALEXANDRIA  
TREATMENT BY ANTISEPTIC DROPS ONLY.

TABLE I (a).—CONDITION OF CONJUNCTIVITIS.

SCHOOLS.	BEGINNING OF THE YEAR.							END OF THE YEAR.						
	Healthy.	Conjunc- tivitis.	Trachoma.				TOTAL.	Healthy.	Conjunc- tivitis.	Trachoma.				TOTAL.
			I.	II.	III.	IV.				I.	II.	III.	IV.	
Faiyûm ... ..	14	—	11	24	142	26	217	12	—	12	12	164	33	233
Per cent ... ..	6·4	—	5·1	11·0	65·4	12·0		5·1	—	5·1	5·1	70·4	14·2	
Alexandria ... ..	128	4	35	15	75	99	356	146	—	50	12	70	69	347
Per cent ... ..	35·9	1·1	9·8	4·2	21·0	27·9		42·1	—	14·4	3·4	20·1	19·9	
Total ... ..	142	4	46	39	217	125	573	158	—	62	24	234	102	580
Per cent ... ..	24·7	0·7	8·0	6·8	37·9	21·8		27·3	—	10·7	4·1	40·3	17·6	

TABLE I (b).—EFFECT OF TREATMENT ON SERIOUS STAGES OF TRACHOMA.

SCHOOLS	Pupils with any Stage of Trachoma.	STAGES OF TRACHOMA I AND II.			
		Beginning of the Year.		End of the Year.	
		Number.	Per Cent.	Number.	Per Cent.
Faiyûm ... ..	203	35	17·2	24	11·8
Alexandria ... ..	224	50	22·3	62	27·6
Total ... ..	427	85	19·9	88	20·4

TABLE II (a).—TRACHOMA AND ITS RELATION TO SCHOOL YEARS (Beginning of the Year).

SCHOOL YEARS.	FAIYÛM.						ALEXANDRIA					
	Healthy.	Conjunc- tivitis.	Trachoma.				Healthy.	Conjunc- tivitis.	Trachoma.			
			I.	II.	III.	IV.			I.	II.	III.	IV.
First year ...	6	—	6	17	48	4	43	3	16	7	28	18
Second year...	4	—	2	6	31	7	32	—	12	4	14	32
Third year ...	2	—	2	1	30	4	29	—	4	1	20	26
Fourth year...	2	—	1	—	33	11	24	1	3	3	13	23
Total... ..	14	—	11	24	142	26	128	4	35	15	75	99

TABLE II (b).—COMPARISON OF SERIOUS STAGES OF TRACHOMA (Beginning of the Year).

SCHOOL YEARS.	FAIYÛM.			ALEXANDRIA.		
	Total Cases of Trachoma.	Stages I and II.	Per Cent.	Total Cases of Trachoma.	Stages I and II.	Per Cent.
First year ... ..	75	23	30·6	69	23	43·3
Second year ... ..	46	8	17·4	62	16	25·8
Third year... ..	37	3	8·1	51	5	9·8
Fourth year ... ..	45	1	2·1	42	6	14·3
Total... ..	203	35	17·2	224	50	22·3



## X.—PUBLICATIONS.

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### (A) Annual.

- (1) Annual Report on Ophthalmic Hospitals : 1912,\* 1913,\* 1914,\* 1915 with 1916, 1917, 1918, 1919,\* 1920.
- (2) Bulletin of the Ophthalmological Society of Egypt : 1904\* with 1905, 1906\* with 1907, 1908\* with 1909,\* 1910,\* 1911,\* 1912, 1913,\* 1914, 1915, 1917,\* 1918,\* 1919,\* and 1920.\*

### (B) Occasional.

- (1) "Four Years' Work with the Ophthalmic Hospitals of Egypt." Annual Meeting, British Medical Association, 1907.
- (2) "The Relief of Eye Diseases in Egypt with some Consideration of the Incidence of Blindness and Trachoma." Sixteenth International Medical Congress, Budapest, 1909.
- (3) "The Egyptian Ophthalmic Hospitals." Annual Meeting, British Medical Association, 1910.
- \* (4) "Ophthalmic Hospitals in Egypt." "Ophthalmic Record." U.S.A., 1910.
- (5) Communication read at the Fourth International Blind Congress in Cairo, February 1911. Published in "Ophthalmoscope," 1911.\*
- (6) "What are the best means to adopt to avoid the spread of the forms of Ophthalmia which may lead to blindness."
- (7) "Egyptian Ophthalmic Hospitals and the War."
- \* (8) "Les Divisions du Trachome, le Traitement de cette Affection et de ses Complications." By the Director, *Archives d'Ophthalmologie*, September 1911.
- (9) "Trachoma and its Complications in Egypt." By the Director, Ophthalmic Hospitals in Egypt, Cambridge University Press, London, 1913.

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\* These volumes are now exhausted.

The available copies of the Bulletin of the Ophthalmological Society of Egypt may be obtained from the Honorary Secretary c/o Department of Public Health, Cairo. Price P.T. 20 or 4s. 6d. post free.

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# تقرير قسم الرمد عن سنة ١٩٢٠

## المقدمة

فى سنة ١٩٢٠ بوشرت الأعمال الكليينكية فى عشرين مستشفى وعيادة بالقطر المصرى وقد زاد عدد المرضى الذين عولجوا عن مثله فى السنة السابقة حتى بلغ عدد المستجدين منهم ٩٤,٩٢١ وعدد العمليات ٥٦,٥٠٣ وعدد زيارات المرضى للعيادات الخارجية ١,٠٦٤,٥٠٩ .

وباتمام مستشفى الرمد الجارى بناؤه الآن ببندر قنا (الذى تفضل صاحب العظمة مولانا السلطان بوضع الحجر الأول فى أساسه فى يناير سنة ١٩٢١) يكون قد تم المشروع المراد به إيجاد مستشفى بكل مديرية على غاية ما يرام غير أن مديرية أسوان لعجزها التام عن بناء مستشفى فقد قضت الضرورة بأن يخصص لها أحد المستشفيات المتنقلين الكبيرين المتبرع بهما جناب المرحوم السرارست كاسل . وسيبأشر هذا المستشفى عمله بمدينة أسوان فى فصل الشتاء وينقل فى الربيع إلى كوم أمبو أو إلى إدفو وربما نقل إلى أبعد من ذلك شمالا ، أى إلى إسنا أو الأقصر اللتين وإن كانتا غير تابعتين لمديرية أسوان إلا أنهما واقعتان على مسافة بعيدة جدًا من أقرب مستشفى رمدى ثابت بمدينة قنا .

وقد أدرج بهذا التقرير صور فوتوغرافية للعشرين مستشفى وعيادة المتقدم ذكرها . والمستشفيات المتنقلة عددها خمسة ، منها اثنان كبيران مستكملتا الأدوات والمعدات وهما اللذان تحولتا فى مدة الحرب الكبرى إلى مستشفيات عموميين . أما المستشفى الثالث الكبير المماثل لهذين فموجود بصفة دائمة بالجيزة . ومما يدعو لتام السرور أن صاحب العظمة مولانا السلطان قد أبدى ميلا نحو إيجاد مستشفى من البناء بمدينة الجيزة بدلا من مستشفى الخيام الحالى . وكل عملية جراحية تعمل فى مستشفى من البناء يمكن إجراؤها فى مستشفى خيام كامل المعدات ولكن العمليات الجراحية التى تعمل فى مثل هذا المستشفى تكون على نوع ما معرّضة لما يهب عليها من الأتربة ولذلك يجب بذل أقصى عناية بكل ما يتعلق بإدارة المستشفى لضمان النظافة التامة .

والمستشفيان اللذان أنشأهما مجلسا مديرتى الدقهلية وأسيوط ويقومان بالانفاق عليهما صغيران وقليلتا النفقة ولكنهما مع ذلك يؤديان عملا جليل النفع والفائدة إذ أن كل منهما قد باشر معالجة ٣٠٠٠ مريض جديد وأجرى ٢٠٠٠ عملية جراحية فى مدة السنة بالرغم من وجود طبيب واحد وأقل عدد ممكن من العمال فى كل منهما .

وقد بلغت جملة نفقات إنشاء وتأثيث العشرين مستشفى مائة ألف جنيه مصرى تقريبا ونفقات إدارتها السنوية بما فى ذلك نفقة العيادات الرمدية بالمدارس الابتدائية الأميرية ثلاث وثلاثون ألف جنيه مصرى . وقد ألحقت بهذا التقرير كشوفات تفصيلية ببيان هذه المصروفات التى تدل على توخى الاقتصاد فى إدارة هذه المستشفيات .





وزارة الداخلية

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مصلحة الصحة العمومية

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# التقرير السنوى الثامن لقسم الرمد

عن سنة ١٩٢٠

بقلم جناب مدير مستشفيات الرمد

طبع بالمطبعة الأميرية بالقاهرة

ويطلب (إما مباشرة أو بواسطة أحد باعة الكتب) من قلم نشر مطبوعات الحكومة بوزارة المالية (بوستة الدواوين) بالقاهرة





